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For Prelims and Mains

Table of Contents

| | |
|---|----------|
| 1. Polity & Governance | 1 - 45 |
| 2. Bilateral Relations and International Organizations..... | 46 -116 |
| 3. Economics..... | 117- 124 |
| 4. Environment..... | 125- 171 |
| 5. Science & Technology..... | 172- 181 |
| 6. Miscellaneous..... | 182- 186 |

1. The next Census

Introduction

The Centre, it seems, is finally preparing to conduct the Census which it could not carry out in 2021 because of the Covid-19 pandemic. Though an official announcement is yet to be made, sources have indicated that the exercise might begin next year.

This Census is linked to two other important outcomes — the delimitation of Parliamentary constituencies, which has been on hold for the last five decades, and the implementation of women's reservation in Parliament.

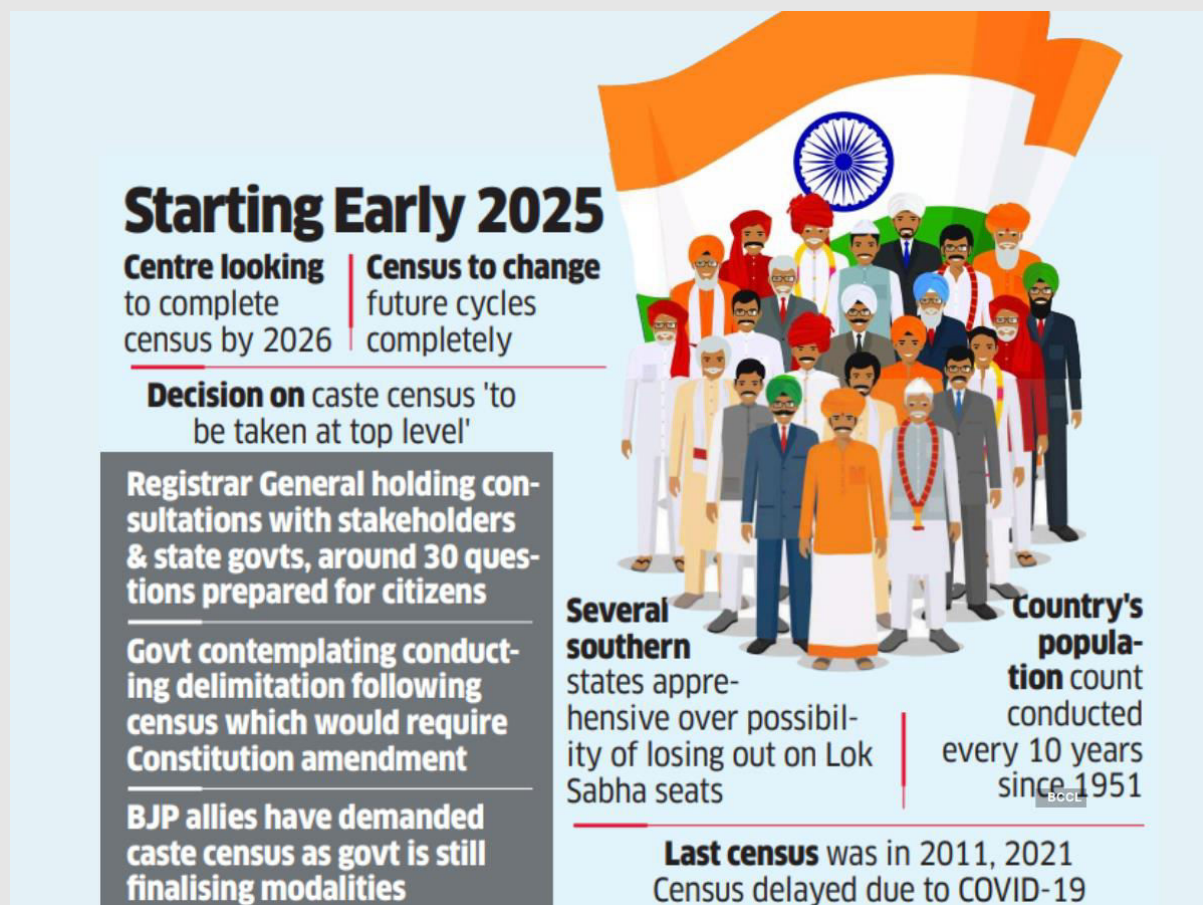
The year 2021 marked the first time India's Census missed its decadal schedule since it was first carried out in 1881. But the pandemic was very much over by 2022, and that could have enabled the start of the Census process in 2023 or 2024. The government seems to have deliberately delayed starting the Census to ensure that the delimitation or reorganisation of Parliamentary constituencies is carried out immediately after it. However, a Census completed by 2026, or earlier, might not allow for an immediate delimitation.

The delimitation angle

Delimitation, a Constitutional mandate, is supposed to happen after every Census. The process adjusts the number of constituencies of Parliament and state Assemblies in accordance with the latest population figures, to ensure that the number of people represented by any Member of Parliament or Member of Legislative Assembly is roughly the same. However, this exercise has been suspended since 1976 due to a lack of political consensus.

If the standard logic of delimitation were to be followed, the wide divergence in population growth trends in various states would mean that some would see the number of Parliamentary constituencies reduce, while others would see an increase. Southern states have argued that this would amount to punishing them for successfully meeting population control objectives. A delimitation exercise in 2002, following the 2001 Census, involved only the redrawing of existing boundaries of constituencies, and not a change in the number of constituencies.

As of now, delimitation is suspended till at least 2026. The 84th Constitutional Amendment of 2017 said that the next delimitation can be held only based on the Census conducted after 2026. Therefore, even if the 2021 Census had been held on time, or in 2023 or 2024, delimitation could have been done only after the 2031 Census. If the Census, which takes two years to complete, begins next year, delimitation can theoretically happen immediately thereafter.



Once in a decade

The Census has happened in the first year of every decade since it was first held. There is a Constitutional mandate to carry out a Census — it is mentioned as item 69 on the Union List of subjects, meaning only the Central government is empowered to undertake the exercise.

There are repeated references to the Census in the Constitution of India in the context of the reorganisation of constituencies for Parliament and State Assemblies. But it does not say when the Census has to be carried out, or what the frequency of this exercise should be. The Census of India Act of 1948, which provides the legal framework for it, also does not mention its timing or periodicity.

Therefore, there is no Constitutional or legal requirement for a Census every 10 years. However, the British administration carried it out in the first year of every decade, and this convention was maintained after Independence. Most other countries also follow a similar cycle for their Census. Some, like Australia, carry out a Census after every five years.

Schedule for delimitation

India's Census is a two-step process involving a house-listing and numbering exercise, followed by population enumeration. House-listing and numbering are done in the year before

the Census year, usually between April and September. Population enumeration happens between the second and fourth weeks of February in the Census year.

The numbers revealed represent the population of India as of midnight on March 1 in the Census year. To account for the births and deaths during the enumeration period in February, the enumerators return to the households in the first week of March to make revisions. The preliminary results of the Census, particularly population totals, are released within a few months, usually in the same year the Census is carried out. The full results take one to two years to come out.

Interestingly, a Census that begins in 2025 and is completed in 2026 might not enable an immediate delimitation. The language of the 84th Constitutional amendment says delimitation can happen only on data from the first Census "taken after the year 2026".

This would suggest that the population enumeration part of the Census has to be carried out after 2026. Therefore, if the Census exercise has to begin next year and the government wants to begin the delimitation process afterwards, in time for the 2029 Lok Sabha elections, an amendment to the existing provision may be required.

However, Constitutional requirements are likely to be the least of the problems encountered in conducting delimitation. The suspension of delimitation was caused by sharp disagreements among the political parties, which continue to date. Southern states, which would see their seats in Parliament reduced if current populations are accounted for, might want to put off delimitation again — unless they are compensated in some other way.

The recommendations of the 16th Finance Commission might be a crucial element here. The Finance Commission, a body constituted every five years, recommends the devolution of financial resources between the Centre and states. The 16th Finance Commission is supposed to submit its report by the end of next year.

Further, the Parliament approved the 128th Constitution Amendment last year, reserving 33 per cent of seats in the Lok Sabha and State Assemblies for women. However, it is supposed to come into effect only after the seats in Lok Sabha and State Assemblies are modified, following the delimitation exercise.

Caste Census demand

There is also an expectation that the next Census may collect caste data as well to eliminate the need for a separate caste census, which has been demanded by some political parties in recent years.

The collection of caste data in the Census would not be unprecedented. Some information related to caste was obtained until the 1941 Census and the practice was discontinued only in independent India. In some earlier years, information on caste or sect of people belonging to all religions was obtained in the Census. In other years, only the caste data of Hindus was collected.

The practice was discontinued from the 1951 Census onwards, and only data on Scheduled Castes or Tribes has been collected since then.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

2. Rules to get disability certificates tweaked: the changes, why they are being opposed

Introduction

The government last week notified the Rights of Persons with Disabilities (Amendment) Rules, 2024 (RPwD Rules), introducing changes to the process of applying for and issuing disability certificates and unique disability identity cards (UDID).

The amendments have been made by the Department of Empowerment of Persons with Disabilities (DePWD) to tighten the application and vetting processes. Recently, IAS probationer Puja Khedkar was dismissed from service for allegedly forging her disability and caste certificate.

While government officials have said the changes in norms are to streamline the process, disability rights groups have called for their rollback, claiming they make the application process cumbersome.

Divyang News!

Government of India made Changes in Getting Disability Certificate.

Previously, individuals could apply for disability certificates through various medical authorities or government hospitals. Now, applications must be submitted exclusively through the Unique Disability ID (UDID) portal, which has raised concerns about accessibility for many applicants who may lack digital literacy or internet access



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Rules to get disability certificates Which processes have been amended?

The RPwD Amendment Rules have made changes in Rule 17 and Rule 18. Rule 17 relates to the mode of application, the authority to apply to, and the documents to be submitted. Rule 18 relates to the issuance of disability certificates and UDID cards once the applications are received, and the timeframe to issue them.

While the UDID portal already issues colour-coded cards on the basis of the extent of disability, the amended rules now specify that white, yellow and blue cards would be issued. White would be for those with disability below

40 per cent, yellow for those with 40–80 per cent disability, and blue for those with disability of 80 per cent and above.

The severity of disability is examined using the government's 'assessment guidelines', which were last updated in March. Twenty-one different kinds of disabilities and their extent or severity are assessed using these guidelines.

What are the changes in these processes?

Under Rule 17 on the process of applications, one of the most important tweaks is that persons with disabilities have to submit their application through the UDID portal, and it has also given a statutory backing to UDID cards. In the earlier Rules, notified in 2017, there was no specific mention of submitting the applications only through the digital medium and also no specific mention of applications for UDID cards.

The application has to be made only to a "medical authority or any other notified competent medical authority" of the district where the applicant resides. The tweak is important, as the earlier version of the Rules did not stress the need to submit the application only to a "competent medical authority".

Further, under Rule 17(2), the applicants have to now submit a proof of identity, and a photo not older than six months along with their Aadhaar number. Earlier, the applicant's Aadhaar number along with proof of residence and two recent photographs was enough to make the application.

Under the rules on issuance, the certificate and UDID card can now be issued within three months as opposed to a month previously. Government officials have claimed that this change has been made following feedback from hospitals which examine persons with disabilities before issuing certificates.

Further, under the new rules, an application can be considered void if no decision is taken by the relevant medical authority for two years.

Why have disability rights organisations sought its rollback?

Various disability rights organisations and activists have criticised the amendments on the grounds that the tweaks put the onus of preventing forgeries on the applicants rather than the government.

For instance, the National Platform for the Rights of the Disabled (NPRD) pointed out that the insistence on submitting the applications only through the UDID portal is based on the assumption that the community is comfortable with digital media.

Regarding the requirement for a "notified competent medical authority", activists said this takes away the assistance provided by independent medical experts associated with trusts and non-profits, who help medical boards during the process of certifying disability.

On the issue of giving a three-month period to authorities for issuing the certificates and UDID cards, activists said this would delay the process. Activists said there are instances when the

certification is required on an urgent basis for educational applications or to seek reservation benefits. Providing a longer minimum window, they said, would stretch the process.

The NPRD said seeking additional supporting documents, such as photographs not older than six months, adds more burden on those with sensory and mobility issues and those who are in remote areas.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

3. Supreme Court ruling on child marriage: why it's important to go beyond just punishment

Introduction



The judgment in *Society for Enlightenment and Voluntary Action v. Union of India*, delivered by the Supreme Court earlier this month, has moved the focus in cases of child marriage from penalising criminal actions to addressing the “harm meted out to the victim”.

The judgment underlines that comprehensive efforts to address child marriage should go beyond prevention and prosecution, and must include substantial measures to help those already in child

marriages reclaim their agency.

According to National Family Health Survey data, the percentage of women aged 20-24 who were married before 18 declined from 47.4% in 2005 to 26.8% in 2016, and further to 23.3% in 2021. Nonetheless, the United Nations’ Sustainable Development Goal (SDG) of eliminating child marriage entirely by 2030 appears ambitious.

The institutional response has focused mostly on prevention and, of late, prosecution — such as the mass arrests of men in Assam whose wives were minors when they married.

What is the law on child marriage?

Under the Prohibition of Child Marriage Act, 2006 (PCMA), a “child marriage” is one in which either the husband is under 21 years of age, or the wife is under 18. Such a marriage is “voidable”, that is, the party that was a child at the time of the marriage has the option to annul it — until such annulment occurs, the marriage is valid and subsists.

In Karnataka and Haryana, as state-specific amendments have made all child marriages void from the beginning.

Is annulment the same as divorce?

Annulment is different from divorce — when a marriage is annulled, it is as though it had never occurred, and the individuals involved are considered unmarried.

In contrast, divorce acknowledges that a marriage existed for a period before being dissolved, leaving the parties with the legal status of divorcees.

Divorce requires proving specific grounds — such as cruelty or adultery — depending on the personal law applicable. For annulment under the PCMA, the individual needs to only establish that a child marriage took place, and that they were within the legal age limit to apply for nullification.

PCMA also provides for other civil remedies such as maintenance, residence orders, and return of gifts exchanged at the wedding.

Why are there concerns about using criminal action to tackle child marriage?

Although the child marriage itself subsists unless it is annulled, various activities related to child marriage are criminalised.

Under the PCMA, performing or promotion of child marriage, and a male adult marrying a minor are criminal offences. Sexual activity with a minor, including within a child marriage, is an offence under the Protection of Children from Sexual Offences Act, 2012 (POCSO), and the Bharatiya Nyaya Sanhita, 2023 (BNS).

Applied together, the criminal provisions of PCMA, BNS, and POCSO create the possibility of criminal action against the girl's entire family — her parents, husband, and in-laws — which could leave her in a vulnerable position without preparation or support to survive independently. It may also create barriers in accessing sexual and reproductive healthcare, as seeking such services could inadvertently trigger criminal action against her family.

A study of 73 judgments from 2008 to 2017 by the Delhi-based legal resource group Partners for Law in Development found that the criminal provisions of PCMA were used twice as often in cases of self-initiated marriages than arranged marriages.

A 2024 study by Bengaluru-based Enfold Proactive Health Trust and Civic Data Lab based on 174 PCMA judgments from Assam, Maharashtra, and Tamil Nadu, showed 49.4% of these marriages were self-initiated.

These trends suggest that criminal action can overlook complexities involved in the issue, and cause unintended harm to adolescents seeking autonomy.

In many cases, underage individuals choose to marry to escape difficult situations such as neglect, abuse, or the prospect of a forced marriage. These child marriages involve young people asserting their agency in a patriarchal society, using elopement as a way to legitimise their relationships.

Why is the SC judgment significant?

Exiting a child marriage can attract social and economic sanctions. The SC judgment directs the introduction of a special scheme for skill development, vocational training, and economic stability for women who leave child marriages, rehabilitation services, monitoring and follow-up support to ensure reintegration, and a call to consider compensation for these women under victim compensation schemes.

Some women may not want to exit the marriage, but may need help to claim agency within the marriage. They require tools to strengthen their ability to advocate for themselves in decisions involving reproductive rights, employment, and education. The SC judgment's emphasis on sex education for adolescents can empower those in such marriages with the skills and information to effectively navigate their relationships.

When implemented with an understanding of the evolving nature of child marriage — especially trends involving young people eloping — these measures offer a more holistic and agency-affirming approach to eliminating child marriage than an over-reliance on criminal prosecution.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

4. Central Sector Scheme “NAMO DRONE DIDI”

Introduction

The Government has approved the Central Sector Scheme ‘Namo Drone Didi’ for providing Drones to the Women Self Help Groups (SHGs) under DAY-NRLM, with an outlay of Rs. 1261 Crores. The scheme aims to provide drones to 14500 selected Women SHGs during the period from 2024-25 to 2025-2026 for providing rental services to farmers for agriculture purpose (application of liquid fertilizers and pesticides for the present).



Operational Guidelines

The Department of Agriculture & Farmers' Welfare has released the Operational Guidelines for this scheme and all the stakeholders have been requested to make meaningful use of these operational guidelines to ensure prompt roll out and implementation of the 'Namo Drone Didi' Scheme. The major components of the

operational guidelines are as under:

- The Scheme will be governed at the Central level by the Empowered Committee of the Secretaries of Department of Agriculture & Farmers' Welfare, Department of Rural Development, Department of Fertilizers, Ministry of Civil Aviation and Ministry of Women and Child Development.

- The Implementation and Monitoring Committee headed by the Additional Secretary, Department of Rural Development and having representation from all other stakeholders will be responsible for effective planning, implementation and monitoring of the scheme and it will provide overall advice and guidance to all technical matters related to the implementation of the scheme.

- Under the scheme, a Central Financial Assistance @ 80% of the cost of drone and accessories/ancillary charges up to a maximum of ₹ 8.0 lakhs will be provided to the women SHGs for purchase of drones as a package.

Relevance: GS Prelims; Governance

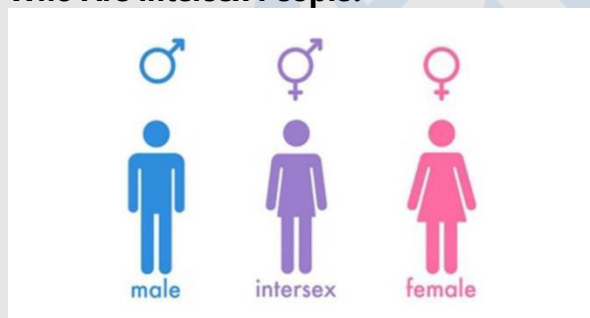
Source: PIB

5. Intersex Awareness Week: Understanding Intersex People and Their Challenges

Introduction

Despite progress within the broader LGBTQ+ movement, there remains limited awareness about intersex people, a vital part of the queer community. Intersex Awareness Day is observed annually on October 26 to highlight their experiences, with many organizations dedicating the week to building awareness and celebrating this community.

Who Are Intersex People?



Intersex individuals are born with sex characteristics—such as reproductive organs, hormone patterns, or anatomy—that do not fit typical definitions of male or female bodies, as defined by the UN High Commissioner for Human Rights. These differences can include atypical genitalia, hormone levels, or sex chromosomes.

Key Points:

- **Physical Traits:** Intersex status relates to physical attributes, not gender identity or sexual orientation.
- **Intersex vs. Transgender:** Intersex conditions are about physical differences, while being transgender involves gender dysphoria (discomfort with one's assigned sex).

Challenges Faced by Intersex People in India

Intersex individuals in India face systemic challenges, particularly around the binary approach to gender in society and the legal system.

Major Issues:

- **Non-consensual Surgeries:** Many intersex children undergo surgeries to "correct" their genitals, often resulting in trauma, scarring, and sterilization.
- **Legal Recognition:** Intersex people struggle with lack of recognition in official documents, as only male, female, or transgender options are available on identity cards like Aadhaar.
- **Insurance and Legal Protections:** The Transgender Persons (Protection of Rights) Act of 2019 includes a definition for intersex individuals but lacks specific protections or prohibitions addressing their unique challenges.

Historical Background: Why October 26?

On October 26, 1996, activists Morgan Holmes and Max Beck were forcefully removed from the American Academy of Pediatrics' conference while advocating against non-consensual surgeries on intersex children. This event became the foundation for Intersex Awareness Day, marking the first significant public protest for intersex rights.

The Early Movement:

- Conversations about intersex issues initially took place on forums like The Portland Intersex Initiative and Bodies Like Ours.
- The concept of an "awareness day" emerged in 2003 to increase media coverage and public visibility for the movement.

Intersex Identity in India's Cultural and Legal Context

While historical texts reference "hijras" or "third gender" individuals, these terms are not synonymous with intersex identities. The hijra community often includes transgender, gender non-conforming, and intersex people, which can lead to misrepresentation.

Legal Milestones:

- **NALSA Judgment (2014):** Recognized the rights of transgender people, including hijras, but did not explicitly address intersex rights.
- **Madras High Court (2019):** Banned sex-reassignment surgeries on intersex infants in Tamil Nadu without their informed consent.
- **Kerala High Court (2023):** Ordered regulations on intersex surgeries after a petition highlighted the need for protection.

The Role of Intersex Activists and Organizations

Activists have played a critical role in advancing intersex rights. For example, the Tamil Nadu government's 2019 order against intersex surgeries resulted from advocacy by groups like Srishti Madurai and Intersex Asia.

Key Contributions:

- **Srishti Madurai:** India's first organization focused on genderqueer and intersex issues, launched a helpline and engaged with policymakers to raise awareness.

- **Intersex Human Rights India (IHRI):** Works to educate and advocate for intersex rights despite challenges such as social media trolling and internal community differences.

The Ongoing Legal Battle

The fight for intersex rights in India continues, with activists like Gopi Krishna M. filing a Public Interest Litigation (PIL) in the Supreme Court to demand central legislation protecting intersex children from non-consensual surgeries. The petition also calls for inclusive identity documents and recognition in the national Census.

Conclusion

While the intersex rights movement in India is still growing, it is gaining momentum thanks to the dedication of activists and organizations. The road ahead may be challenging, but there are ongoing efforts to secure legal protections, public recognition, and informed consent for intersex individuals.

By raising awareness and advocating for their rights, we can ensure that intersex people are not only recognized but also respected within the broader fight for equality and human rights.

Relevance: GS Prelims & Mains Paper I and II; Society and Governance

Source: Indian Express

6. Project to monitor animal health launched: its objectives, funding

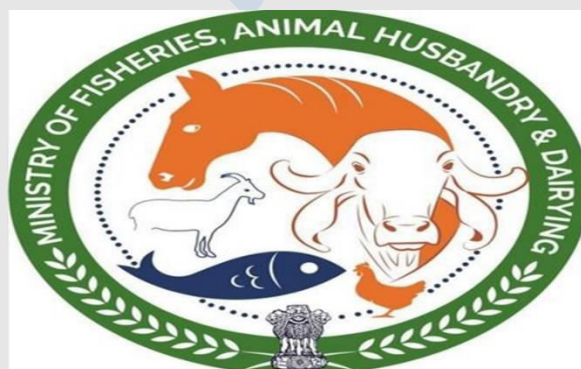
Introduction

The central government recently launched a project to better monitor animal health for prevention of future pandemics.

The 'Animal Health Security Strengthening in India for Pandemic Preparedness and Response' initiative was launched by the Union Minister of Fisheries, Animal Husbandry and Dairying, Rajiv Ranjan Singh alias Lalan Singh, in New Delhi on October 25.

What is the project?

The project aims to enhance the country's capacity to "prevent, detect, and respond to animal health threats."



The project was approved by the Pandemic Fund, created by G20 countries under Indonesian presidency in 2022.

The basic purpose of the fund is to assist low- and middle-income countries in strengthening their capacities to identify, report and contain future pandemics.

In its first investment round, the fund mobilised \$2 billion. Proposals from various countries were invited for funding, and 350 expressions of interest (EoI) and 180 full proposals were received in the first call. Of these, the governing board of the Fund approved 19 grants in 37 countries. From India, the proposal by the Union animal husbandry department made it to the final list to receive a funding of \$25 million.

What is the timeline for the project?

The project will work with the help of three implementing agencies—Asian Development Bank (ADB), the World Bank, and the Food and Agriculture Organisation (FAO). It is expected to be completed by August 2026.

What are the interventions planned?

In a concept note, the Department of Animal Husbandry and Dairying said, "The major interventions under the project are strengthening and integrating disease surveillance and early warning systems, upgrading and expanding the laboratory network, improving the interoperable data systems, building capacity for data analytics and risk communication, and strengthening health security for transboundary animal diseases and India's role in regional cooperation through cross-border collaboration."

"The impact of the project would be to reduce the risk that a pathogen will emerge from animals (domesticated and wildlife) and be transmitted to the human population, endangering the health, nutritional security, and livelihoods of vulnerable populations," said the note.

Why is it needed?

The WHO declared six public health emergencies of international concern in the past few decades, out of them five were zoonotic (transmitted from animals to humans). The latest example of such a disease was Covid-19, which affected the entire world in 2020-21.

About two-thirds of infectious diseases affecting humans originate from animals. Therefore, it is necessary to focus on animal health security as part of future pandemic preparedness. India, with 536 million livestock and other animals, requires measures to prevent and manage infection outbreaks.

What are the expected outcomes of the project?

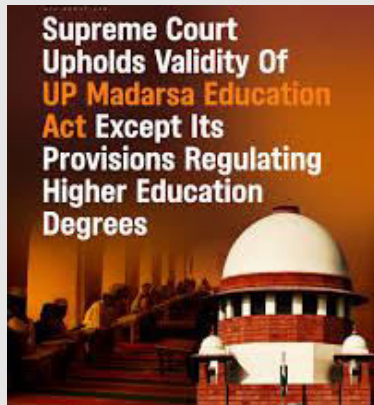
According to the ministry, following are the five key outputs expected from the project: augmentation of laboratory systems and vaccine manufacturing facilities; strengthening of surveillance and early warning systems; development of human resources capacity and competency; strengthening of data systems, analytics, risk analysis, and risk communication; and addressing cross-cutting institutional capacity gaps at national and regional levels.

Relevance: GS Prelims; Governance

Source: Indian Express

7. Why the Supreme Court upheld constitutional validity of UP Madarsa Act, 2004

Introduction



The Supreme Court recently upheld the constitutional validity of the Uttar Pradesh Board of Madarsa Education Act, 2004 (Madarsa Act), barring the provisions relating to higher education.

In doing so, it overruled the Allahabad High Court's earlier ruling which struck down the entire Act for violating the principle of secularism.

What is the Madarsa Act?

Madarsas provide both religious education in Islamic tenets and practices as well as mainstream secular education. Most madarsas follow the National Council of Educational Research and Training (NCERT) curriculum.

The Madarsa Act provides a legal framework for these institutions in UP. It has established the Uttar Pradesh Board of Madarsa Education (the Board), which prepares and prescribes course material, and conducts exams for all courses. The Act also gives power to the state government to create rules to regulate madarsa education.

Why did Allahabad HC quash the Act?

On March 22, the Allahabad HC struck down the Act in its entirety, saying it violated the basic structure of the Constitution as the law flouted the principles of secularism. In *Kesavananda Bharati v State of Kerala* (1973), the SC had held that Parliament cannot alter the Constitution's basic structure, and in *S R Bommai v Union of India* (1994) had ruled that secularism is part of the basic structure.

The HC said the Act made it compulsory for students to study Islam and more modern subjects were made optional. It held that the state cannot "discriminate" by providing education based on religion.

The HC also stated that the Act violated the right to free and compulsory education under Article 21A of the Constitution by denying "quality" education in modern subjects.

It said the Board's powers to grant higher education degrees such as Fazil and Kamil — equivalent to a bachelor's and a postgraduate degree respectively — under the Act conflicted with the University Grants Commission Act, 1956 (UGC Act), a central law that takes precedence in matters related to education.

Why did SC uphold the Act?

The SC set aside the HC's verdict on three main grounds:

BASIC STRUCTURE TEST NOT NEEDED: Constitutional amendments are tested against the basic structure doctrine, not an ordinary legislation.

In its ruling, the SC underlined this, citing its decision in *Indira Gandhi v Raj Narain* (1975), which pertained to an amendment to the Representation of the People Act, 1951, that was enacted to reverse the Allahabad HC's ruling to disqualify Indira from participating in elections. The amendment was challenged for violating the Constitution's basic structure. However, the SC held that the argument that the amendment violates the basic structure was too "vague and indefinite" to determine the validity of an ordinary law.

In the Madarsa Act case, the SC said for a law to be struck down for violating the principle of secularism, it must be "traced to express provisions [Articles] of the Constitution".

STATE CAN REGULATE MADARSAS: The SC said so long as the regulation is "reasonable and rational", states can regulate aspects of education in minority institutions without violating their rights to handle the administration. The Madarsa Act does this "without depriving the educational institutions of their minority character," the SC ruled.

The court also referred to Entry 25 of the Concurrent list in the Constitution which allows both states and the Centre to enact laws on the subject of "Education". It said this must be given the "broadest meaning" and includes institutions that provide religious education.

RIGHT TO EDUCATION & MINORITY INSTITUTIONS: In 2014, the SC heard a challenge to the constitutionality of Article 21A. The court held that the Right of Children to Free and Compulsory Education Act, 2006 (RTE Act) must not apply to minority institutions as it may destroy their minority character.

The SC in the Madarsa Act case referred to this decision and held that the HC had erred by striking down the law for violating the right to education. The court also stated that minority institutions such as madaras have a right to provide religious education and handle their own administration under Article 30.

Why did SC strike down higher education provisions of the Act?

The SC ruled that a part of the Madarsa Act's Section 9 — which allows the Board to prescribe coursework, conduct exams, and grant degrees to those who have finished Kamil and Fazil courses — is contrary to the UGC Act. Under Section 22 of the UGC Act, only universities which have been established under a central or state Act or have been "deemed" to be universities by the UGC can grant degrees. Therefore, the SC struck down a part of the Section 9.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

8. The demand for greater autonomy for Eastern Nagaland districts

Introduction



Last week, after months of a lull, the Nagaland government stated that it was ready to forward its comments on the Centre's draft Memorandum of Settlement on an arrangement for greater autonomy for the state's six eastern districts.

The longtime demand for a separate state or greater autonomy for this region has gained momentum in recent years. For instance, in this year's Lok Sabha polls, the area saw a complete abstention from voting in the region.

The state government's move is expected to set the ball rolling for further deliberation on the matter.

Why the demand for greater autonomy?

Eastern Nagaland refers to the six eastern districts of the state: Kiphire, Longleng, Mon, Noklak, Shamator, and Tuensang. These districts are home to members of seven tribes — Konyak, Khiamniungan, Chang, Sangtam, Tikhir, Phom, and Yimkhiung — and account for more than 30% of the state's population. They also account for 20 of the 60 seats in the Assembly.

A demand for the creation of a separate state of Nagaland's eastern districts has been a long-standing one. It escalated more than a decade ago when the influential Eastern Nagaland People's Organization (ENPO) submitted a memorandum to the Prime Minister's Office in November 2010. The group demanded a separate state with special status and provisions owing to a "development deficit" in the region. The lack of development in the region has continued to be the driving force behind the demand for a separate state.

What is the current status of the demand?

The demand flared up again ahead of last year's Nagaland Legislative Assembly polls, which had taken place in February. As early as August 2022, the ENPO passed a resolution to abstain from participating in the Assembly polls unless the separate state demand was met. However, weeks before the state went into polls, the ENPO withdrew the boycott call, citing an assurance from the Union Ministry of Home Affairs that a "mutually agreed solution" would be reached and implemented after the election process.

Since then, there have been several rounds of meetings between the ENPO and the Union Home Ministry. Early this year, the Centre sent a draft Memorandum of Settlement to the

Nagaland government and sought its comments. So far, this matter has been halted at this stage.

As a result, the ENPO had called for a boycott of the Lok Sabha elections unless the matter was resolved before the polls and there was close to no voting in the six districts on voting day in April. Both the state government and the ENPO had pointed fingers at each other for the hold-up. The ENPO accused the state government of sitting on the matter and the state government claimed that it had sought deliberations with the ENPO and legislators from the region and that the matter had halted at that stage.

However, last week, Nagaland Parliamentary Affairs Minister K G Kenye said discussions with the ENPO and ENLU (Eastern Nagaland Legislators' Union) took place in the last few weeks following which the government was ready to forward its case to the Centre.

What kind of arrangement for autonomy is being discussed?

According to sources who have been part of meetings between the ENPO and Centre, including a tripartite meeting with representatives of the Nagaland government, the discussions have been towards a "unique arrangement" called 'Frontier Naga Territory' within Nagaland with a separate legislature, and executive and financial powers.

Last week, Nagaland Minister Kenye said the arrangement the state government had discussed was still centred in the state capital Kohima with a regional council based in a headquarter in East Nagaland with power over local issues. He stated that it would be in line with the provision of a regional council for this region that is already contained within Article 371 (A) of the Constitution. However, ENPO President A Chingmak Chang told that ENPO was not privy to the Centre's proposal sent to the state government and would consider it only after the Centre sends it directly to the ENPO.

"The proposal that was sent was sent purely for the state government for its comments. It is up to the state government to send whatever it wants. Once it submits its comments, then the Ministry of Home Affairs can invite the stakeholders and that's when we will discuss the issue. We will discuss only directly with the Centre, not the state government," he said.

What is the provision for a regional council of Eastern Nagaland?

The state of Nagaland was carved out of Assam in 1963 as a result of 16-point agreement between the Naga People's Convention and the Union of India. Special constitutional provision had been provided under Article 371A to the new state which includes provisions for the protection of Naga customary law. Both the agreement and Article 371A have a provision for the then undivided Tuensang district – which later became the six present districts – to be governed directly by the Governor owing to its relative backwardness. The agreement provided for this arrangement for 10 years "until such time when the tribes in the Tuensang District are capable of shouldering more responsibility of advance system of administration in other parts of the Nagaland."

Article 371A provided for a regional council for the Tuensang district consisting of 35 members, which would nominate members to the legislative assembly. Later this system was done away with at the end of 10 years in 1973 and it was only then that this region participated for the first time in the state legislative assembly elections.

Relevance: GS Prelims & Mains Paper II; Governance
Source: Indian Express

9. Private property and the 'common good': Unpacking the SC verdict

Introduction

The Supreme Court last week delivered a landmark verdict in the Property Owners Association & Ors v State of Maharashtra case. The nine-judge Bench headed by Chief Justice of India D Y Chandrachud answered two key questions.

First, what is the status of Article 31C, the key constitutional provision that deals with the right to property, and does it still exist despite amendments to it being struck down by the apex court?

Second, does Article 39(b) allow the state to acquire private property as "material resources of the community"?

Context: Articles 39(b) & 31C

The case before the SC pertained to a Maharashtra law that allowed a public housing body to acquire certain decrepit privately owned buildings in Mumbai. The specific 1986 amendment in question stated that the law gave effect to Article 39(b) of the Constitution, which places an obligation on the state to ensure "that the ownership and control of the material resources of the community are so distributed so as best to subserve the common good".

While upholding the law in 1991, the Bombay High Court had said that laws passed to give effect to Article 39(b) are protected under Article 31C of the Constitution. Introduced by the Constitution (Twenty-Fifth) Amendment Act in 1971, Article 31C was meant to further the Indira Gandhi government's stated socialist goals. The original provision contained two parts. The first part said "no law giving effect to the policy of the State towards securing the principles specified in clause (b) or clause (c) of article 39 shall be deemed to be void on the ground that it is inconsistent with, or takes away or abridges any of the rights conferred by article 14 [right to equality], article 19 [assorted rights including freedom of speech and freedom to practise any profession] or article 31 [right to property, repealed and replaced by Article 300 A in 1978]".

The second half said "no law containing a declaration that it is for giving effect to such policy shall be called in question in any court on the ground that it does not give effect to such policy" — effectively protecting laws meant to give effect to Articles 39(b) and (c) from being being challenged in court. This part was struck down by the SC in its landmark Kesavananda Bharti in 1973. But the first part remained in effect.

The Constitution (Forty-Second Amendment) Act, 1976 further expanded the scope of Article 31C to all articles in Part IV of the Constitution (Articles 36-51). But this amendment was struck down by the SC in the Minerva Mills case in 1980.



Not all private properties are ‘material resources of community’ under Art. 39(b) for state to equally distribute; Supreme Court rules in landmark 7:2 verdict

Justice Dr. D.Y. Chandrachud • Justice Hrishikesh Roy • Justice B.V. Nagarathna
Justice Sudhanshu Dhulia • Justice J.B. Pardiwala • Justice Manoj Misra
Justice Rajesh Bindal • Justice Satish Chandra Sharma
Justice Augustine George Masih

Question 1: Status of Article 31C

In 1992, when the petitioners in the Property Owners Association case approached the SC to appeal Bombay HC's decision from a year before, they argued that Minerva Mills verdict effectively struck down Article 31C in its entirety. This, they argued, opened the Maharashtra law to be quashed on the grounds that it violated Article 14.

Now, the 42nd Amendment had substituted the words "the principles specified in clause (b) or clause (c) of article 39" in Article 31C with the words "all or any of the principles laid down in Part IV".

The court in Property Owners Association case clarified when striking down the amendment in Minerva Mills, the words "all or any of the principles laid down in Part IV" would not simply be deleted as this would lead to "absurd outcomes or render the text wholly unworkable".

Instead, the version of Article 31C that was upheld in Kesavananda Bharati — the first part of the original provision — would remain. The court thus held that the repeal of the earlier wording in the Constitution and the substitution of the new one are a part of the same action by Parliament.

The whole Bench, including Justice BV Nagarathna, who authored a concurring opinion, and Justice Sudhanshu Dhulia, who delivered the sole dissent, agreed on this point.

Question 2: Interpretation of Article 39B

Justice Krishna Iyer, in his concurring opinion in Ranganatha Reddy (1977), specifically dealt with what constituted a “material resource of the community”. He held that “all resources, natural and man-made, public and private-owned” that satisfy material needs fall within the ambit of the phrase “material resources of the community” used in Article 39(b).

The SC relied on this minority opinion in Sanjeev Coke Manufacturing Co (1983). In a challenge to the Coking Coal Mines (Nationalisation) Act, 1972, the court held that the nationalisation of coke oven plants owned by the petitioners was immune from being challenged for violating Article 14.

The court in Property Owners Association, however, drew a distinction between whether private property can be considered as “material resources of the community”, and if all private property is included in this phrase (as Justice Iyer had held). It held that if Article 39(b) was meant to include all private property, the provision would have been worded differently to make this clear.

Justice Iyer’s interpretation, the court said, was rooted in “the belief that an economic structure which prioritises the acquisition of private property by the state is beneficial for the nation”. This was an “error” since it was based on a single “rigid economic theory”.

“Today, the Indian economy has transitioned from the dominance of public investment to the co-existence of public and private investment,” the court said and that “a construction of Article 39(b) which provides that all private property is included within the ambit of Article 39(b) is incorrect”. Justice Nagarathna, however, disagreed and said the interpretation of Article 39(b) “cannot be critiqued... merely because the socio-economic policies of the State have changed”.

The majority opinion provided four factors that must be considered to determine whether private property may be deemed as a material resource of the community:

- The nature of the resource and its inherent characteristics;
- The impact of the resource on the well-being of the community;
- The scarcity of the resource; and
- The consequences of the resource being concentrated in the hands of private owners.

In his dissent, Justice Dhulia wrote in favor of retaining the view that all private resources can be considered the material resources of the community. He stated that though poverty may have decreased “in absolute terms”, this does not mean that overall inequality and “the gap between the rich and the poor” has decreased. Addressing this requires “welfare measures...under Article 39(b) & (c) of the Constitution, as interpreted in Ranganatha Reddy and Sanjeev Coke”, he held.

10. SC issues guidelines to curb illegal demolitions: what it said, what do state laws say?

Introduction

SC Pan India Guidelines for demolition of Properties: The Supreme Court recently laid down guidelines to curb demolition of people's homes and private properties by the government "only on the ground that they are accused of a crime".



A Bench of Justices B R Gavai and K V Viswanathan held that such actions violated the rights of the accused, including the presumption of innocence, unfairly punished the other tenants who have not been accused of anything, and violated the right to shelter under Article 21 of the Constitution of India. What are the SC's guidelines on demolitions? The guidelines include a mandatory 15-day notice period for the tenants to either challenge the order or see to their affairs before being evicted, with the notice

indicating the reasons for demolition and the date of hearing to challenge the action. The court also held that violation of these guidelines could lead to contempt proceedings and along with compensation, the officials ordering the demolition could be asked to pay for the restitution of the property themselves.

The court was hearing applications challenging house demolitions carried out by the state governments in Rajasthan and Madhya Pradesh. In both cases, demolitions took place after Muslim tenants allegedly committed crimes that triggered communal tensions.

The applications were tagged with a petition filed by the Jamiat-Ulama-i-Hind challenging demolitions carried out in Jahangirpuri in Delhi in 2022. Since then, demolition drives in other states have been challenged as well.

This is what local laws in these states say about demolitions.

RAJASTHAN

On August 17, the Udaipur Municipal Corporation demolished a tenant's house that had allegedly "encroached" on forest land.

The demolition took place after the tenant's 16-year-old son was arrested for allegedly stabbing his classmate who belonged to another community, which led to communal tensions in the city.

Notices were issued by the Udaipur Municipal Corporation and the Regional Forest Officer, Udaipur West, on the previous night, stating that the house had illegally encroached on forest land.

Section 245 of the Rajasthan Municipalities Act, 2009 ("Encroachment or obstruction upon public land") says anyone who encroaches upon public land can be punished with up to three years in prison and a fine of up to Rs 50,000.

The civic body can also seize and confiscate such property. However, under Section 245(10), the alleged offender must be first served notice in writing with the grounds on which the property is being confiscated. Also, the offender must be given an opportunity to make a written representation "within such reasonable time" that is specified in the notice, as well as an opportunity to be heard.

Also, under Section 91 of the Rajasthan Forest Act, 1953, only a Tehsildar can pass an order to evict a "trespasser" and order that the land in question be seized if it is being illegally occupied.

MADHYA PRADESH

In June, the ancestral home of a labourer was demolished by the district administration after his son was accused of placing the severed head of a "bovine" in the premises of a local temple. The police registered an FIR against the applicant's son on June 14, and demolished a part of his house on the same day, allegedly without serving notice.

Under Section 187 of the Madhya Pradesh Municipalities Act, 1961, the Municipal Council can "remove, alter, or pull down" a building if it has been constructed or altered without permission from the council.

However, the Act states that notice must be served to the owner first to show sufficient cause. The building can be demolished only if the owner "fails to show sufficient cause" in response to the notice.

UTTAR PRADESH

In June 2022, the Jamiat-Ulama-i-Hind had approached the Supreme Court to challenge demolitions carried out in Uttar Pradesh in the aftermath of the violent protests that had followed certain remarks made by then BJP leader Nupur Sharma about the Prophet during a television debate.

Demolitions in Uttar Pradesh are governed under the Uttar Pradesh Urban Planning and Development Act, 1973. Section 27 of the Act ("Order of demolition of building") deals with cases where land has been developed without permission from the Vice-Chairman of the UP Development Authority (established by the state government). In such instances, an order of removal will be sent to the owner and the development shall be removed by demolition "within such period not being less than fifteen days and more than forty days" from the date the order is issued.

The owner can appeal against the order to the chairman of the development authority, who can either allow or dismiss the appeal. According to Section 27(4), this decision “shall be final and shall not be questioned in any Court”.

DELHI

The original proceedings at the Supreme Court began following communal violence in Delhi’s Jahangirpuri in April 2022. A procession for Hanuman Jayanti that took place on April 16 sparked communal tensions in the area, leading to stone pelting and violence.

On April 20, the North Delhi Municipal Corporation (NDMC) launched a demolition drive to remove “illegal encroachments” in the area. On the same day, the Jamiat-Ulama-i-Hind filed a plea seeking a stay on the demolition drive, which was granted by the Supreme Court.

During the hearings, Solicitor General Tushar Mehta referred to the Delhi Municipal Corporation Act, 1957 (DMC Act). Under Sections 321 and 322 of the Act, the commissioner of the municipal corporation can remove without notice, if placed without permission, “any stall, chair, bench, box, ladder, bale or other thing whatsoever”, or “any article whatsoever hawked or exposed for sale on any public street or...any vehicle, package, box, or any other thing in or on which such article is placed”.

Under Section 343, the commissioner can order demolition if a building has been erected without permission, or work has commenced which violates provisions of the DMC Act. The commissioner can direct that the “work” in question be demolished within 5-15 days.

However, the commissioner must give the individual “reasonable opportunity” to show why a demolition order should not be issued. A demolition order can also be appealed before the Appellate Tribunal established under the DMC Act.

HARYANA

Days after communal violence flared up in the Muslim-majority Nuh district of Haryana during the Brajmandal Jalabhishek Yatra in August 2023, state authorities demolished 443 structures. In an affidavit submitted to the Punjab & Haryana High Court, the district administration said 354 people were affected by the demolitions, 283 of whom were Muslims, and the rest were Hindus.

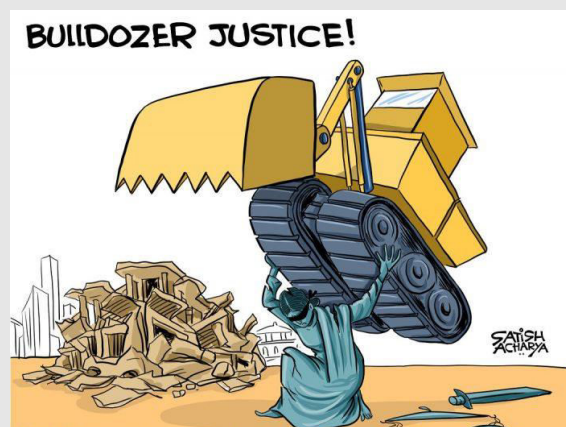
Demolitions in the state are governed by Section 261 of the Haryana Municipal Corporation Act, 1994. The provision shares many similarities with Section 343 of the DMC Act. But the individual has less time to begin demolishing the building or “work” — it is only three days (compared to five under the DMC Act) — and it is not specified when the window will shut (compared to the maximum 15 days available in Delhi).

Like in the DMC Act, however, the owner of the building/ “work” must be provided with “reasonable opportunity” to argue why a demolition order should not be issued, and they may appeal a demolition order before a district judge in that jurisdiction.

11. What Supreme Court said about 'bulldozer justice'

Introduction

The Supreme Court recently laid down a series of guidelines to ensure that due process is followed for demolishing the properties of citizens.



These guidelines were a part of the court's verdict in a case that had raised the issue of demolition of properties by state authorities as a punishment for the alleged involvement of the property owner in a crime. The case was heard by a Bench of Justices B R Gavai and K V Viswanathan.

The verdict came just days after then Chief Justice of India D Y Chandrachud, while hearing a case regarding a man whose home was

illegally demolished by the UP government as a part of a road widening project, referred to such demolitions "bulldozer justice".

What was the case?

The case pertained to a set of pleas that challenged the "extra-legal" practice of demolishing houses of people accused of criminal activities. The practice has been observed in recent years in BJP-ruled states such as Uttar Pradesh, Madhya Pradesh, and Uttarakhand. It was also seen in Rajasthan, during Congress rule in 2022.

Recent ruling was prompted by incidents in Udaipur, Rajasthan, and Ratlam, MP, earlier this year.

In Ratlam, bulldozers were used to pull down a family's ancestral home after the owner's son was arrested for slaughtering a cow in June. In Udaipur, the municipal corporation demolished a tenant's house for allegedly "encroaching" on forest land. The demolition took place in August soon after the tenant's 15-year-old son was arrested for stabbing his classmate from another community, leading to a flare-up in communal tensions in the city. The lawyers submitted that the demolition and the accusations against the tenant's son were connected.

These pleas were tagged with another set of cases which pertained to demolition drives in other states.

One of them was filed by the Jamiat-Ulama-i-Hind in April 2022 amidst a demolition drive that followed communal violence in Delhi's Jahangirpuri.

What are the guidelines?

The guidelines laid down by the SC place emphasis on transparency and giving the accused and their family sufficient time to handle their affairs. The SC clarified that the guidelines will not apply to “an unauthorised structure in any public place such as road, street, footpath, abutting railway line or any river body or water bodies and also to cases where there is an order for demolition made by a Court of law”.

PROVIDING NOTICE: The SC said a minimum of 15 days prior notice must be given for a person to respond to before demolition is carried out, starting from the date that the owner or the occupier receives the notice. This notice must contain details of the structure, why it is being demolished, and a date for a “personal hearing” to allow owners to contest the demolition.

As soon as the notice is served, the local Collector or the District Magistrate should be informed via email, with an arrangement for an auto-reply acknowledgment of the email’s receipt “[t]o prevent any allegation of backdating”, the SC said.

HEARING & FINAL ORDER: After conducting a hearing where the minutes are properly recorded, the SC said the final order must mandatorily contain certain information. This includes the arguments made by the owner or the occupier, why the authority (such as the local municipal corporation) believes the case cannot be settled, and whether the entire construction or only a part is to be demolished. Reasons such as “why the extreme step of demolition is the only option available” should also be mentioned, the SC said.

THE AFTERMATH: If the authority passes a final order for demolition, and after the property owner or the occupier receives the order, the SC said, “the order will not be implemented for a period of 15 days”. This allows the owner or the occupier to either remove the construction or challenge the final order in court and seek a stay order.

At the end of this second 15-day period, if the final demolition order has not been stayed and the construction has not been removed, demolition can be carried out. However, the authority must take a video recording of the demolition and prepare both an “inspection report” before the demolition and a “demolition report” with a list of personnel involved in the demolition process.

What is the SC’s reasoning for the guidelines?

The SC relied on several fundamental constitutional and legal principles that are violated when the illegal demolition of an accused person’s property takes place.

SEPARATION OF POWERS: The verdict stresses that the judiciary is entrusted with “adjudicatory” (decision-making) powers to decide if an accused person is guilty, and whether any of the organs of the state have “transgressed” their limits. The judiciary then asks, “Can the officers of the State Government take upon themselves the adjudicatory function and

without a person undergoing a trial be inflicted with a punishment of demolition of his properties."

It would be "wholly impermissible" for the state to decide that demolition can be a punishment for an accused person, according to the SC. It said, "The executive cannot replace the judiciary in performing its core functions".

PUBLIC TRUST & TRANSPARENCY: The SC said public officials must be held accountable for both their actions and inactions. Officials who "take the law in their hands" and pass demolition orders on the ground that the owner or occupier of the property is an accused "should be made accountable for such high-handed actions," according to the court.

The SC also said the guidelines are necessary to ensure that the government acts in a "transparent" manner and hold them accountable when they don't.

RIGHT TO SHELTER: The SC noted that the accused is not the only one who lives or owns such properties. It highlighted that the right to life with dignity under Article 21 of the Constitution includes the right to shelter. Depriving this right of the other innocent people living in the same house as the accused would be "wholly unconstitutional", according to the SC.

To address cases where the demolished property houses an accused but also violates municipal laws as an illegal construction, the SC laid down a separate test. It said when a "particular structure is chosen all of a sudden for demolition and the rest of the similarly situated structures in the same vicinity are not even being touched" it can be presumed that the "real motive" was to penalise the accused and not to remove an illegal construction.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

12. Central Consumer Protection Authority Issues Guidelines for "Prevention of Misleading Advertisement in Coaching Sector"

Introduction

In a significant move to protect the rights of consumers and maintain transparency in the coaching sector, the Central Consumer Protection Authority (CCPA) has issued comprehensive guidelines to address the issue of misleading advertisements in the coaching sector.

About Guidelines

'Guidelines for Prevention of Misleading Advertisement in Coaching Sector, 2024,' aim to safeguard students and the public from deceptive marketing practices commonly employed by coaching centers.

Some of the important definition in the Guidelines are as follows:-

i. "Coaching" includes academic support, imparting education, guidance, instructions, study programme or tuition or any other activity of similar nature but does not include counselling, sports, dance, theatre and other creative activities;



ii. "Coaching Center" includes a center, established, run, or administered by any person(s) for providing coaching to more than fifty students;

iii. "Endorser" shall have the same meaning as provided under clause 2(f) of the Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022;

These guidelines are drafted in the wake of growing concerns about false/misleading claims, exaggerated success rates, and unfair contracts that coaching institutes often impose on students. Such practices have been found to mislead students, influencing their decisions by concealing important information, giving false guarantee etc.

The guidelines will apply to every person engaged in coaching, meaning not just the coaching centers, but also any endorsers or public figures promoting their services through advertisements. Endorsers, who lend their name or reputation to coaching centers, will now be responsible for ensuring that the claims they endorse are accurate and truthful. Endorsers who endorse coaching institutes must verify the claims they are promoting. If they support false success rates or misleading guarantees, they will be held accountable alongside the coaching centres.

Key Highlights

Some of the Key Highlights of the Guidelines:

i. Regulation of Advertisements: The guidelines explicitly prohibit coaching institutes from making false claims related to:

- The courses offered, their duration, faculty qualifications, fees, and refund policies.
- Selection rates, success stories, exam rankings, and job security promises.
- Assured admissions, high exam scores, guaranteed selections or promotions.

ii. Truthful Representation: Misleading representations about the quality or standard of their services are strictly prohibited. Coaching institutes must accurately represent their infrastructure, resources, and facilities.

iii. Students' Success Stories: In a notable move, the guidelines reportedly will prevent coaching centers from using students' names, photos, or testimonials in advertisements without their written consent—and importantly, this consent must be obtained only after the

student's success. This provision is intended to reduce the pressure student's face when enrolling, as they are often pushed into signing such agreements upfront.

iv. Transparency and Disclosure: Coaching centers will need to disclose important information, such as the name, rank, and course details alongside the student's photo in an advertisements.

Whether the course was paid for by the student that too must be clearly stated. Additionally, any disclaimers will need to be prominently displayed, with the same font size as other important details, ensuring that consumers are not misled by fine print.

v. No Creation of False Urgency: The guidelines will reportedly target the common tactic used by any person engaged in coaching i.e. creating a false sense of urgency or scarcity, such as implying limited seats or exaggerated demand, to pressure students into making immediate decision.

vi. Convergence with National Consumer Helpline: Every coaching center will be required to partner with the National Consumer Helpline, making it easier for students to raise concerns or complaints regarding misleading advertisements and unfair trade practices.

vii. Fair Contracts: The guidelines are also said to address the issue of unfair contracts that students are often enter into with coaching centers. Coaching institutes will no longer be allowed to use successful candidate's photographs, names, or testimonials without post-selection consent. This provision is intended to eliminate the pressure that many students face when enrolling in coaching centers.

viii. Enforcement and Penalties: Any violation of these guidelines will be treated as a contravention of the Consumer Protection Act, 2019. The Central Authority has the power to take stringent actions against offenders, including imposing penalties, ensuring accountability, and preventing further occurrences of such deceptive practices.

Relevance: GS Prelims & Mains Paper II; Governance
Source: PIB

13. Supreme Court's order on mandatory accessibility standards, why it matters

Introduction

A bench of the Supreme Court last week ordered the Union government to frame mandatory rules for ensuring the accessibility of public places and services to persons with disabilities. Outgoing Chief Justice of India Justice DY Chandrachud headed the bench.

The apex court held that the provisions of the Rights of Persons with Disabilities (RPwD) Act and the rules notified under it were not being treated as mandatory. Thus, the judgment reaffirmed accessibility as a fundamental right. Here is what to know.



First, what is the Rights of Persons with Disabilities (RPwD) Act?

As a signatory to the United Nations Convention on Rights of Persons with Disabilities (CRPD), India is obligated to promote accessibility as an essential right. According to Article 9, "to enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to

ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications... and to other facilities and services open or provided to the public, both in urban and in rural areas".

Enacted in 2016, the RPwD Act draws on the CRPD and aims "to ensure that all persons with disabilities can lead their lives with dignity, without discrimination and with equal opportunities." The RPwD Rules of 2017, framed under the Act, were to lay down specific accessibility standards.

The SC noted that while the RPwD Act created a mechanism for mandatory compliance, the 2017 rules created a mechanism which only prescribed self-regulatory guidelines. It referred to a report prepared by the National Academy of Legal Studies and Research (NALSAR)'s Centre for Disability Studies.

So far, 17 standards and guidelines have been notified across government ministries and departments. These include accessibility guidelines issued by Indian Railways for providing facilities at railway stations, as well as by the Ministry of Ports, Shipping and Waterways. The guidelines issued for the port sector state that they are illustrative in nature and not exhaustive, the SC pointed out.

The lack of uniformity across the different guidelines would create issues in enforcement, the SC noted. This, it said, is because they contain different standards for the same accessibility requirements.

What did the Supreme Court rule?

The judgement was passed over a writ petition filed in 2005 by Rajive Raturi, a visually challenged person, who sought directions on ensuring safety and accessibility in public spaces. The SC held that in its current form, the RPwD rules do not provide for "non-negotiable" compulsory standards but only persuasive guidelines. It said that Rule 15 (1) contravened the

provisions and legislative intent of the RPwD Act and is thus ultra vires (beyond the powers of) the Act.

It said the guidelines prescribed under the rule were recommendatory and directed the Union government to frame mandatory rules, as required under the RPwD Act, within three months from the date of this judgment. The Union government was also directed to consult stakeholders and NALSAR's Centre for Disability Studies in the process.

It added that once the mandatory rules are prescribed, the Centre, state governments and union territories would have to ensure that non-compliance with the accessibility standards is penalised. This can be done by withholding completion certificates and imposing fines.

What did the NALSAR report find?

The SC directed NALSAR-CDS in November 2023 to assess the ground situation vis-a-vis accessibility, after appraising the lack of progress by the Centre and the states. It considered views of the Centre, state governments, union territories, courts and prisons to collate details on accessibility initiatives. Only 14 states and three UTs responded. It also gathered views from persons with disabilities and focussed on the lived experiences of people.

On access to transport systems, the report noted that it was key for access to education, employment and healthcare. It noted that in Delhi, 3,775 low-floor CNG buses were available for accessible travel whereas in Tamil Nadu, only 1,917 buses out of 21,669 were accessible. The report emphasised that the right to accessibility has to be viewed through other disadvantages such as caste, sex, religion and region and the intersection of disability with these factors. The report also listed some specific disadvantages, such as inaccessible job portals for visually impaired persons and lack of sign language recognition for those with hearing and speech impairments.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

14. India's undertrial prisoners

Introduction

Union Home Minister Amit Shah said that undertrials who have spent more than a third of the maximum prescribed sentence for the crime they are accused of committing should be released before Constitution Day (November 26). The Supreme Court has already allowed the retrospective application of this provision.

What does Section 479 of the BNSS, which provides relaxed bail standards for first-time offenders, state? What has the Supreme Court said on the matter? And what is the state of undertrials in India?

Section 479 of the BNSS

Section 479 of the BNSS lays down the “Maximum period for which [an] undertrial prisoner can be detained”.

It states that a prisoner who is not accused of offences punishable with death or life imprisonment shall be released on bail if she has “undergone detention for a period extending up to one-half of the maximum period of imprisonment specified for that offence under that law”.


This same standard was provided under the previously applicable Section 436A of the Code of Criminal Procedure, 1973 (CrPC).

But the BNSS has also relaxed the standard further in cases concerning “first-time offenders” — requiring such accused persons to be released on bail after they have spent one-third of the maximum possible sentence in prison.

Exact provision

It states, “Provided that where such person is a first-time offender (who has never been convicted of any offence in the past) he shall be released on bond by the Court, if he has undergone detention for the period extending up to one-third of the maximum period of imprisonment specified for such offence under that law”.

The provision, however, clarifies that an accused “shall not be released on bail by the Court” if there are pending investigations or trials into more than one offence or in “multiple cases” relating to the same person.

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| <div><div>LawGist <small>Law Made Simple</small></div><div>SECTION 479 BNSS TO UNDERTRIALS CASES REGISTERED BEFORE JULY 1, 2024 ALLOWED BY SC</div></div> | |
| HEADLINE | SC ORDERS RETROSPECTIVE APPLICATION OF SECTION 479 BNSS, GRANTS BAIL TO UNDERTRIALS BEFORE JULY 1. |
| SUMMARY | SC Applies Section 479 BNSS Retrospectively, Allows Bail for Undertrials Serving Considerable Sentence Time. |
| KEY FACTS | Re-Inhuman Conditions In 1382 Prisons: SC Bench Consists of Justices Hima Kohli and Sandeep Mehta. |
| LEGAL INSIGHTS | SC: Section 479 BNSS Applies Retrospectively, Eases Bail Conditions for First-Time Offenders and Undertrials. |
| IMPACT | SC Ruling to Release Undertrials, Addresses Prison Overcrowding, Upholds Personal Liberty and Fair Treatment. |
| WHY IT MATTERS | Judiciary Commits to Personal Liberty, Fair Treatment, and Legal Reforms for Undertrials and Prisoners. |

Top court's interpretation

In August, a Bench of Justices Hima Kohli and Sandeep Mehta held hearings on the issues faced by undertrial prisoners in the case *In re: Inhuman conditions in 1382 prisons*.

The case began as a PIL after former Chief Justice of India R C Lahoti sent a letter to the court, highlighting issues such as overcrowding in prisons, unnatural deaths of prisoners, and the inadequacy of trained prison staff. Since 2013, the court has been hearing issues relating to prisons in this case.

Noting that the new provision was "more beneficial", the court on August 23 ordered that Section 479 would apply "retrospectively" to cases that were registered against first-time offenders even before the BNSS came into effect on July 1, 2024. Additional Solicitor General Aishwarya Bhati communicated the Centre's agreement to this measure before the order was passed.

The court ordered all state governments and Union Territories to file affidavits within two months detailing "the number of undertrials who would be entitled to extension of the benefit of Section 479 of the BNSS, the number of applications moved before the concerned Courts for their release and the number of undertrials actually released by the date of filing of the affidavits".

The court also ordered jail superintendents to send reports with this data so that the states and UTs could collect them for their final affidavit.

Notably, Section 479 already places a duty on the superintendent of the jail to send an application to the court for releasing a person on bail under this section once the relevant time period — either half or one-third of the maximum sentence — has elapsed.

However, on October 22, a new Bench comprising Justices Hrishikesh Roy and S V N Bhatti noted that only 19 out of the 36 states and Union Territories had filed responses detailing the steps taken to implement the court's August order.

On November 19, the SC once again ordered all jail superintendents to identify all undertrial prisoners, especially women, who would be entitled to bail under Section 479 of the BNSS so that courts can consider granting bail in these cases.

India's undertrial prisoners

According to the National Crime Records Bureau's report *Prison Statistics India 2022* (published in December 2023), of the 5,73,220 people incarcerated in Indian prisons, 4,34,302 are undertrials against whom cases are still pending. That amounts to nearly 75.8% of all prisoners in India.

Of the 23,772 women in prisons, 18,146 (76.33%) are undertrials, the report notes.

The report does not record how many undertrial prisoners were first-time offenders. As of December 31, 2022, around 8.6% of all undertrial prisoners had been in prison for more than three years.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

15. How does PM Vidyalaxmi differ from other schemes?

Overview

On November 6, the Union Cabinet chaired by Prime Minister Narendra Modi approved a new Central Sector Scheme, PM Vidyalaxmi, which seeks to provide financial support to meritorious students applying for higher education. Students will now be eligible to get collateral-free, guarantor-free loans from banks and financial institutions to cover the full amount of tuition fees and other expenses related to the course.

PM-Vidyalaxmi

- Cabinet approves PM Vidyalaxmi, a new Central Sector scheme that seeks to provide financial support to meritorious students so that financial constraints do not prevent anyone from pursuing higher studies
- Any student who gets admission in Quality Higher Education Institution will be eligible to get collateral free, guarantor free loan from banks and financial institutions to cover full amount of tuition fees and other expenses related to the course

Salient features

- Extension of education loans to meritorious students who get admission in the top 860 quality higher educational institutions of the nation, translating to covering more than 22 lakh students every year
- Loan amounts up to Rs.7.5 lakhs will be provided a 75% credit guarantee by the Government of India, to support banks to expand coverage

The infographic includes a photo of Prime Minister Narendra Modi and a group of students.

What does the scheme cover?

The government has said that students who have gained admission in 860 quality higher education institutions, as defined by the National Institutional Ranking Framework (NIRF), are eligible for the loans. The scheme will potentially cover 22 lakh students, a Ministry of Education spokesperson said. For students with an annual family income of up to ₹8 lakh, and not eligible for benefits under any other government scholarship, a 3% interest subvention for loans up to ₹10 lakh will be provided during the moratorium period. The interest subvention support will be given to one lakh students every year. Preference will be given to students from government institutions

who have opted for technical or professional courses. "An outlay of ₹3,600 crore has been made during 2024-25 to 2030-31, and seven lakh fresh students are expected to get the benefit of this interest subvention during the period," the Ministry added.

What about past schemes?

PM Vidyalaxmi differs from previous central government schemes in the number of institutions eligible, mode of processing of loans, the income cap, and the amount of money to be disbursed. For example, students can apply for loans through the Vidyalaxmi portal, which simplifies loan applications and has links to all major public sector as well as private banks. It also facilitates the tracking of the loan status.

Moreover, while previous schemes offered benefits to only low-income groups, the Vidyalaxmi scheme expands coverage to middle-income families, irrespective of other factors such as caste.

For earlier schemes, the eligible institutions needed to be accredited with the National Assessment and Accreditation Council (NAAC) and the National Board of Accreditation (NBA). With 820 universities of NAAC and 15,501 colleges, along with 3,348 NBA institutions, the total was about 20,000 institutions. However, under Vidyalaxmi, only institutions with NIRF ranks are eligible. This means that the scheme will be applicable to all government and private institutions ranked within the top 100 in NIRF rankings in the overall list as well as all institutions in the category-specific and domain-specific lists. Professor O R S Rao, Chancellor, ICFAI University, Sikkim, who helped to compile the list of universities eligible for the scheme, says the list does not feature 860 unique institutes as some are ranked in multiple categories. An institute has to register for the ranking as a prerequisite to feature in the rankings. While some institutions apply to a single category, some others apply for multiple categories and hence feature on more than one list.

What are the implications?

Rankings are now becoming more and more important with loan eligibility being conditional on them. As this scheme significantly reduces the number of eligible institutions, the stakes of performing well in higher education entrance tests just got higher. Banker Thomas Franco said that this makes it difficult for students who do not have excellent marks to avail the loan. Banks may charge higher rates of interest for other institutions or straight away reject them if they don't have a good rank.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Hindu

16. Should packaged food content be labelled?

Introduction

A new report published by Access to Nutrition Initiative (ATNi) a non-profit global foundation, has found that leading food and beverage (F&B) companies, on average, sell products that are less healthy in low-and-middle income countries (LMICs) compared to what they sell in high-income countries (HICs). This report, which is the fifth edition of the 'Global Access to Nutrition Index', states that it assessed 30 of the world's largest F&B manufacturers — 23% of the global F&B market — on their performance to improve access to nutritious foods.

What were the report's findings?

The report analysed 52,414 products — including those from popular brands such as Nestle, Pepsico, Unilever, Coca-Cola and Hershey among others — using a health star rating system. Under this system products are ranked out of 5 on their healthiness, with 5 being the best, and a score above 3.5 considered to be a healthier choice. The system assesses components of food considered to increase risk (energy, saturated fat, total sugars and sodium) and offsets these against components considered to decrease risk (protein, fibre and fruit, vegetable, nut

and legume) to calculate a final score that is converted to a star rating. The ATNi report found that ‘portfolio healthiness’ was found to be lowest in LMICs, highlighting disparities in products offered across different markets. Food product healthiness in LMICs scored much lower — 1.8 on the system — than in HICs where it scored 2.3. Only 30% of companies have demonstrated a strategy to price some of their ‘healthier’ products affordably for lower income consumers, the report found. It also found that in LMICs, micronutrient data were available for a smaller proportion of products as compared to those in HICs.



Is this the first time?

This is not the first instance of such a finding: in April this year, a report by Swiss NGO, Public Eye and the global coalition International Baby Food Action Network (IBFAN), found that Nestle’s baby food products sold in India as well as in African and Latin American countries, had higher sugar content compared to the same products sold in European markets. While Nestle denied this, the Central government asked the Food Safety and Standards Authority of India (FSSAI) to initiate “appropriate action” against Nestle.

Why is this of significance in India?

India is staring at a Non-Communicable Disease (NCD) burden of epic proportions — an estimated 10.13 crore Indians have diabetes, and as per National Family Health Survey 5 data,

obesity stands at 24% among women and 23% among men. At the same time, undernutrition, anaemia and micronutrient deficiencies continue to remain pressing problems.

A large chunk of the NCD burden, experts say, has to do with diets changing over the past few decades and becoming unhealthier. Citing the Indian Council of Medical Research's (ICMR) dietary guidelines, published in April this year, the Economic Survey of India 2023-24 noted that 56.4% of the total disease burden in India is due to unhealthy diets. The ICMR report had said the upsurge in the consumption of highly processed foods, laden with sugars and fat, coupled with reduced physical activity and limited access to diverse foods, exacerbate micronutrient deficiencies and overweight/obesity problems.

Another significant issue here is affordability: as per UN data over 50% of Indians cannot afford a healthy diet. At the same time, Indian government data reveals that households' expenditure on processed food as a proportion of their food expenditure has risen, says development economist Dipa Sinha.

What about food package labelling?

India is a party to the World Health Assembly (WHA) resolutions, one of which is a resolution on marketing of foods and non-alcoholic beverages to children, highlighting the need to protect children from harmful marketing of junk foods. In 2017, India launched the National Multisectoral Action Plan for Prevention and Control of Common NCDs, 2017-22 (NMAP). However, there has been very little progress made to address front-of-pack labelling of food. Activists have, for years, been pushing the government to bring in regulations for front-of-package labelling of foods that would indicate high sugar, fat and sodium content. A draft notification: Food Safety and Standards (Labelling & Display) Amendment Regulation 2022 was brought in, but has made no headway in two years, says Arun Gupta, convener, Nutrition Advocacy for Public Interest (NAPi). Studies have shown, Dr. Gupta points out, that labelling on the front of packaged food is effective: in Chile and Mexico for instance, the consumption of sugary beverages decreased after such mandatory labelling.

An analysis by NAPi of 43 advertisements of pre-packaged food products and their composition revealed that these foods were high in one or more nutrients of concern such as saturated fat etc. "Policymakers and governments should introduce mandatory policies. To date, voluntary efforts by companies have been insufficient to ensure widespread and strong nutrition-related performance," the ATNi report states.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Hindu

17. Arrest warrant issued against Gautam Adani in New York for alleged bribery: What this means, what happens next

Overview



A Reuters report said arrest warrants were issued in the United States for Gautam Adani and his nephew Sagar Adani, after a grand jury in New York indicted the business tycoon and seven others on charges of bribery of \$265 million (around Rs 2,029 crore).

Deputy Assistant Attorney General for the Justice Department's Criminal Division, accused Adani and his associates of bribing Indian government officials and conspiring to obtain lucrative solar energy supply contracts "through corruption and fraud at the expense of US investors.

What is an indictment in the US legal system and what does it mean for Adani and his alleged conspirators? What is likely to happen next?

What is an indictment?

According to Black's Law Dictionary, "An indictment is a formal written accusation" issued against a party charged with a crime, following a step-by-step process.

After investigating an alleged offence, the police hand over the evidence to a public prosecutor — a lawyer representing either the state or federal government, depending on whether the accusations relate to state or federal offences. If the prosecutor believes a serious crime or a "felony" has been committed, she may then initiate the selection of a grand jury.

What is a grand jury and who are its members?

A grand jury is a panel, composed of people selected randomly from a "fair cross-section" of citizens living within the jurisdiction of the court that may hear the case. It can include up to 23 people in the State of New York, with a minimum of 16 jurors required to be present to hear evidence.

This step is crucial, as according to the official Grand Juror's Handbook for the State of New York (where Adani and his associates have been charged), "In New York State, a person cannot be brought to trial for a felony unless that person has been indicted by a grand jury."

What does a grand jury do?

Unlike a trial jury that one sees in legal procedural dramas or movies, the purpose of a grand jury is not to determine the innocence or guilt of an accused person. While a trial jury must determine if a person is guilty "beyond reasonable doubt", a grand jury needs to meet a lower standard. As an additional step to the criminal trial process, the grand jury must decide if the evidence on record is enough to necessitate holding a trial at all.

If the grand jury deems the evidence sufficient, it issues an "indictment" with a list of formal charges against the accused. The case will then be taken to trial for a final hearing and decision.

Grand jury proceedings are also held in secret, as opposed to trial proceedings open to the public. To deliver an indictment, there need not be unanimous agreement among the jurors, unlike when the case goes to trial. In New York, a minimum of 12 jurors (out of the 16 to 23 who have heard the evidence) must agree on whether to issue an indictment.

What happens now?

In Adani's case, following the indictment, the trial will likely move to the "arraignment" stage. The judge will communicate the charges and decide whether to grant bail to the accused persons, who will, in turn, decide whether to plead guilty or not guilty in response to the charges. If they plead not guilty, the case will proceed to a jury trial.

According to Reuters, prosecutors are reportedly planning to hand the arrest warrants to foreign law enforcement.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Hindu

18. How should India tackle diabetes load?

Overview



On International Diabetes Day (November 14), a paper published in the *The Lancet*, based on a global study, recorded over 800 million adults living with diabetes, with more than half not receiving treatment. According to the study, the total number of adults living with either Type 1 or Type 2 diabetes in the

world has surpassed 800 million — over four times the total number in 1990. Of this, over a quarter (212 million) live in India, with another 148 million in China. The estimate came as a bit of a shock, because the last scientific countrywide estimate by the Indian Council of Medical Research-INDIAB study last year had pegged the number at slightly over 100 million.

Why is there a discrepancy in numbers?

The nub of it is in the means used to measure blood sugar, experts have pointed out. The *Lancet* study, conducted by the NCD Risk Factor Collaboration (NCD-RisC), along with the World Health Organization (WHO), used data from over 140 million people (18+ years) culled from more than 1,000 studies in different countries. They estimated trends from 1990 to 2022 in diabetes prevalence and treatment for 200 countries and territories. As such they had to use what was available as data in these nations — picking fasting glucose or HbA1C or a three-month glycated haemoglobin average. The ICMR study, however, used a fasting measure and a two-hour post prandial value to come up with the number of people who have elevated blood sugar levels.

What are the areas of concern?

1. Rising Numbers: Whether 100 million or 200 million, the fact remains that India already has a large number of people requiring treatment for their diabetes, and who, as a consequence are prone to several life-threatening complications involving the heart, eyes, kidneys, and peripheral nervous system. Quibbling over numbers apart, the Lancet study must be seen as yet another reminder that in India, diabetes has grown — and is growing — across populations, and efforts should be made on a warfooting to both prevent diabetes and treat persons with the condition.

2. Lack of access to treatment: Another aspect that the study highlighted was the lack of access to treatment for people with diabetes. Senior author of the paper, Majid Ezzati, of the Imperial College, London, says: "Our study highlights widening global inequalities in diabetes, with treatment rates stagnating in many low-and middle-income countries, where numbers of adults with diabetes are drastically increasing. This is especially concerning as people with diabetes tend to be younger in low-income countries, and in the absence of effective treatment, are at risk of life-long complications, including amputation, heart disease, kidney damage or vision loss, or in some cases, premature death."

3. Complications are untreatable: No country in the world can afford to treat patients when the complications of diabetes set in, explains Dr. Mohan. "Even if we assume we have 100 million people with diabetes and 20% of them move to kidney failure, then that is 20 million people who will need a kidney transplant. How are we going to help all those people?"

What can individuals do?

The Lancet paper identifies obesity and poor diets as important drivers of the rise in Type 2 diabetes rates. Diabetes rate was either already high or increased more in some of the regions where obesity was or became prevalent between 1990 and 2022. The writing is on the wall: a measure of mindful eating and exercising have a proven effect in preventing diabetes, and controlling blood sugar levels.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Hindu

19. UP Sambhal violence: what is the row around the Shahi Jama Masjid

Overview



Sambhal Masjid Controversy: Three people were killed in Uttar Pradesh's Sambhal district amid stone pelting and torching of vehicles recently, as a team of surveyors reached Chandausi town to carry out a second survey of the Shahi Jama Masjid.

The survey was ordered by a local court, after a petition claimed a temple had been demolished to build the mosque in 1526. The order was passed by the court of Civil Judge (Senior Division), Sambhal at Chandausi, Aditya Singh.

Within hours of filing the petition, the judge appointed an advocate commissioner and directed him to carry out an initial survey at the mosque, which was done the same day. The court also directed that a report of the survey be filed before it by November 29.

What is the Jama masjid in Chandausi?

The Jama Masjid "is a protected monument", notified on December 22, 1920 under Section 3, sub-section (3) of Ancient Monuments Preservation Act, 1904. It has been "declared as Monument of National importance and figures on the website of ASI, Agra circle Moradabad division" in the list of centrally protected monuments.

Who has filed the case?

A total of eight petitioners have filed the case in the Sambhal court. These include advocate Hari Shankar Jain, who is also a lawyer in the Gyanvapi mosque-Kashi Vishwanath dispute; Advocate Parth Yadav; and Mahant Rishiraj Giri, the mahant of the Kalki Devi temple in Sambhal. Other petitioners are Noida resident Ved Pal Singh; Sambhal residents Rakesh Kumar, Jitpal Yadav, Madanpal, and Deenanath.

What does the petition say?

The plea claims there is a "centuries old Shri Hari Har Temple dedicated to Lord Kalki in the heart of city of Sambhal which is being used forcibly and unlawfully" by the Jama Masjid Committee.

The petition says that "Sambhal is a historical city and holds unique significance deeply rooted in Hindu Shastras, according to which it is sacred site where an incarnation of Lord Vishnu known as Kalki manifest in the future, a Divine figure yet to make an appearance".

"Kalki is believed to be tenth and last incarnation of Lord Vishnu, destined to arrive in Kalyuga. His descent is believed to herald the end of the dark and tumultuous Kalyuga ushering in the next age, known as Satyuga," says the plea under the heading "historical facts".

The petition says that that "Hindu scriptures confirm that in ancient times a unique 'Vigrah' consisting of Lord Vishnu and Lord Shiva emerged and due to this reason, it is called 'Shri Hari Har' temple. It says that "Shri Hari Har temple of Sambhal was made by Lord Vishwakarma Himself in the beginning of the universe".

It further says that Babar invaded India in 1526 AD and "destroyed a number of Hindu temples to show the might of Islam to make the Hindus feel that they are subjects of Islamic ruler".

The plea says that "in 1527-28 Hindu Beg, the Lieutenant of Babar Army partly demolished Shri Hari Har temple at Sambhal" and that "the Muslims occupied the temple building to use the same as mosque".

The petitioners say that the monument is protected under the Ancient Monuments and Archaeological Sites and Remains Act, 1958 and under section 18 of the Act, the public has the "right of access to protected monument".

It says that the public "has right of access to the subject property in accordance with Rule 5 of The Ancient Monuments and Archaeological Sites and Remains Rules, 1959.

What have the petitioners said about the ASI?

The plea says that the "ASI has failed to have control over the subject property and they are not taking any action". "The Officers of ASI are silent spectator and they have succumbed to the pressure exerted by members of Muslim community," it says.

What relief have the petitioners sought from the court?

The plea has asked the court to pass an order allowing the petitioners the "right of access into Shri Hari Har Temple/alleged Jama Masjid".

They have asked the court to pass an order commanding the defendants (mosque committee, Union government, ASI) "to make appropriate provisions for giving access to the members of public within" the mosque.

The petitioners have also sought from the court an order in the nature of "permanent injunction restraining the defendants, their officers, workers and every person acting under them from creating any hurdle or obstacle in entering the Plaintiffs and the members of the public into" the structure.

What has the Muslim side said?

Reacting to the survey of the Jama Masjid, Samajwadi Party MP from Sambhal, Ziaur Rehman Barq, said, "Outsiders have attempted to disrupt the communal harmony of the district by filing a petition of this nature in court. The Supreme Court has already stated that, according to the Worship Act of 1991, all religious places that existed in 1947 will remain in their current locations. Jama Masjid in Sambhal is a historic site where Muslims have been offering prayers for several centuries. We have the right to appeal to the high court if we do not receive a satisfactory order from the local court."

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

20. First phase of 'One Nation One Subscription' approved: How the scheme can improve govt institutions' access to journals

Overview



शिक्षा मंत्रालय
MINISTRY OF
EDUCATION

ONE NATION ONE SUBSCRIPTION

- **Cabinet Approval:** Central Sector Scheme to provide nationwide access to scholarly research and journals
- **Budget:** ₹6,000 crore allocated for 2025, 2026, and 2027
- **Digital Access:** Fully digital process managed via a unified "One Nation One Subscription" portal
- **Target Beneficiaries:** Nearly 1.8 crore students, faculty, and researchers in 6,300 institutions, including HEIs and central R&D institutions
- **Coordination:** Managed by INFLIBNET, an autonomous UGC centre



education.gov.in






[@EduMinOfIndia](https://twitter.com/EduMinOfIndia)

The Union Cabinet recently approved a budgetary allocation of Rs 6,000 crore for an initiative called 'One Nation One Subscription' (ONOS) which the Centre hopes will help India's higher education institutions (HEIs) access academic resources for the better.

Aiming to centralise journal subscriptions for nearly 6,300 government-run institutions, ONOS seeks to provide equitable access to 13,000 scholarly journals under a single platform.

Here's a breakdown of the current system, the Cabinet's approval, and the roadmap for this initiative.

How do HEIs currently access journals?

Currently, HEIs can access journals through 10 different library consortia which are under the administrative control of various ministries. A library consortium is a group of two or more libraries that have agreed to cooperate to fulfil certain similar needs, usually resource sharing. For instance, INFLIBNET Centre (Information and Library Network Centre) in Gandhinagar is an Inter-University Centre of the University Grants Commission under the Ministry of Education (India) which oversees the UGC-Infonet Digital Library Consortium, providing access to selected scholarly electronic journals and databases in different disciplines.

Apart from this, HEIs also subscribe to several journals individually. According to government estimates, roughly 2,500 HEIs can access 8,100 journals through the above networks and individual subscriptions.

What does the ONOS scheme offer?

Through the ONOS scheme, the Centre aims to consolidate the disaggregated approach to journal access for all government HEIs. ONOS will enable state and central government HEIs to access thousands of journals on one platform, which will be active from January 1, 2025.

This common platform will host 13,000 journals published by 30 international publishers including Elsevier Science Direct (including Lancet), Springer Nature, Wiley Blackwell Publishing, Taylor & Francis, IEEE, Sage Publishing, American Chemical Society, and American Mathematical Society, among others. All institutions will only need to register on the platform to access these journals. INFLIBNET has been designated as the implementing agency for this initiative. The central government negotiated one subscription price for each of the 30

different publishers and approved Rs 6,000 crore for three calendar years — 2025, 2026 and 2027.

What is the need for ONOS?

The ONOS scheme has been justified on four grounds.

First, it would expand access to the best scholarly journals for 55 lakh to nearly 1.8 crore students, faculty, and researchers across roughly 6,300 government universities, colleges, research bodies, and Institutions of National Importance (INIs), including those in Tier 2 and Tier 3 cities.

Second, it would avoid duplication of journal subscriptions across different library consortia and individual higher education institutions and hence reduce excess expenditure on overlapping resources.

Third, a single subscription for all central and state government HEIs would provide better bargaining power when negotiating with publishers. Citing an example, a source in the central government said, "We have been meeting with representatives of different publishers over the last two years, and during this time, we have worked to negotiate the best price. As a result, the initial cost of Rs 4,000 crore per year for 13,000 journals has been reduced to Rs 1,800 crore."

Fourth, the Centre will gain insights into the extent to which journals are being accessed and downloaded by the government higher education ecosystem, according to the official. "This will not only help in long-term planning but also allow us to encourage inactive institutions to fully utilise the platform and promote its benefits among their teachers, students, and researchers," the officer said.

When was ONOS conceptualised?

The initiative originates from the National Education Policy (NEP) 2020, which emphasised research as a cornerstone for achieving excellence in education and national development. "If India is to become a leader in these disparate areas, and truly achieve the potential of its vast talent pool to again become a leading knowledge society in the coming years and decades, the nation will require a significant expansion of its research capabilities and output across disciplines," the NEP 2020 states. The policy strongly recommended the establishment of a National Research Foundation (NRF) to seed, fund, nurture, and promote research and development (R&D) while fostering a culture of innovation across India's higher education ecosystem.

In 2022, the central government took a concrete step toward this goal by forming a core committee of secretaries, chaired by the Principal Scientific Advisor. This committee then constituted a cost negotiation panel to carry out robust negotiations with journal publishers for the ONOS initiative. The Anusandhan National Research Foundation (ANRF) was established early this year.

What happens next?

The next step is for the central government to negotiate Article Processing Charges (APCs) with journal publishers. APCs, also known as publication fees, are charges authors must pay to publish in certain journals. Scientific journals have various ways of generating income to cover publishing, editorial, operational, peer-review, and other functional costs. Open-access journals typically charge a specific fee for article processing, known as the APC.

According to government estimates, authors in India paid nearly ₹380 crore to journal publishers as APCs in 2021. Similar to how the government negotiated a single subscription rate for all government-run higher education institutions (HEIs), it now aims to do the same for APCs. The Centre believes this approach will reduce overall costs. To achieve this, subject-specific groups of experts from participating ministries will be formed to negotiate with journals on APCs for research papers.

As for whether ONOS will also cover private HEIs, the government has not yet made a decision, sources said.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

21. PAN 2.0: What is the project, why you need to upgrade your PAN card

Introduction



The 10-digit alphanumeric Permanent Account Number (PAN), issued by the Income Tax Department, is set for an upgrade, with a QR code to be incorporated in all new and old cards, a completely online application process, a merger of all existing identification numbers to make PAN as the common identifier for businesses, in addition to a data

vault system for data protection and cybersecurity purposes.

The Union Cabinet approved the PAN 2.0 Project recently for PAN to be made the “the common identifier for businesses” and to make PAN as the “single source of truth and data consistency”.

With the upgrade, PAN is expected to become a strong source of identification and information for the authorities, as it is already linked to the other identification number of Aadhaar.

The existing PAN holders, which are around 78 crore in number, can upgrade their PAN cards. The number or PAN will remain the same for existing users, but the card will need to be upgraded, which the government said would be free of cost for the users.

What is the PAN 2.0 Project?

The PAN 2.0 Project of the Income Tax Department, with a financial implication of Rs 1,435 crore, was approved by the Union Cabinet recently. Under the project, the existing PAN system will be upgraded completely, the IT backbone will be revamped and PAN will be made as a common business identifier for all digital systems of specified government agencies, Union Information and Broadcasting Minister Ashwini Vaishnaw said.

"There were repeated demands from the industry to have a common business identifier. They used to say they don't want different (identification) numbers, a single number would be beneficial. The project will make efforts to make PAN as the common business identifier. All PAN/ TAN/ TIN will be clubbed under this system," Vaishnaw said.

What are the features of PAN 2.0?

Apart from the QR-code feature for all new and existing PAN cards, the PAN 2.0 project aims to set up a unified portal along with a "mandatory PAN data vault system" for all entities using PAN data. This is being done for data protection and cybersecurity purposes.

"One of the most important features would be a PAN data vault system. The PAN related information is used by many entities such as banks, insurance companies. We give details of PAN at various places. So, those (entities) who take details of PAN, they will have to keep PAN data safely, mandatorily through the data vault system," Vaishnaw said.

There will also be a unified portal as the existing software is nearly 15-20 years old, Vaishnaw said. "It'll be completely paperless, online. A lot of focus will be on the grievance redressal system," he said.

The PAN 2.0 project will enable technology-driven transformation of taxpayer registration services with an aim to improve ease of access and service delivery, an official statement said. This will be an upgrade of the current PAN/TAN 1.0 eco-system consolidating the core and non-core PAN/TAN activities as well as PAN validation service.

What does this mean for individuals and businesses?

Existing users will have the option to upgrade for the PAN 2.0 card. The details about the application process and the timeline are yet to be released by the Income Tax Department.

The QR-code feature on new and old PAN cards will mean an enhanced level of integration of financial transactions with the tax department. The QR code was introduced in PAN in 2017. The PAN 2.0 project intends to continue with this feature with enhancements, tax officials said. Around 78 crore PAN cards have been issued so far, out of which 98 per cent belong to individuals.

For businesses, this would mean a seamless, common system for filing various tax challans and returns.

What are the existing identification numbers of PAN and TAN?

A 10-digit alphanumeric number, PAN, enables the Income Tax Department to link all transactions of a person with the department. These transactions include tax payments, Tax Deducted at Source (TDS) / Tax Collected at Source (TCS) credits, returns of income, specified transactions. PAN, thus, acts as an identifier for the person with the tax department. Once PAN is allotted, it remains the same forever. It is mandatory to quote PAN on filing of income tax return.

TAN stands for Tax Deduction and Collection Account Number, which is a 10-digit alphanumeric number issued by the Income Tax Department. TAN needs to be obtained by all persons responsible for deducting or collecting tax at source. It is compulsory to quote TAN in TDS/TCS return, any TDS/TCS payment challan, TDS/TCS certificates.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

1. What is the UN agency for Palestinian refugees that Israel has banned?

Introduction

Israel's parliament on Monday passed two Bills to ban the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) from operating in Israel and the Palestinian territories. The Knesset also voted to designate UNRWA a terrorist organisation, cutting all ties with the agency.

The vote could result in the collapse of the already fragile aid distribution mechanism in Gaza, where almost 2 million Palestinians have been displaced, and food, water, and medicine are in short supply.



What is the UNRWA, and what role does it play?

The UNRWA was established in 1949 to provide aid to about 700,000 Palestinians who were forced to leave their homes during the 1948 Arab-Israeli war.

UNRWA began operations on May 1, 1950. It operates in Gaza and the Israeli-occupied West Bank, as well as in Lebanon, Syria, and Jordan — where Palestinian refugees took shelter after their expulsion.

According to the UNRWA's website, it runs education, health, relief and social services, microfinance and emergency assistance programmes inside and

outside refugee camps in these areas.

An estimated 5.9 million Palestinian refugees — most of whom are descendants of the original refugees — currently access the UNRWA's services.

The UN agency is funded mostly by voluntary contributions from donor states such as the United States, Germany, the European Union, etc. It also gets a limited subsidy from the UN, which is used only for administrative costs.

UNRWA employs some 30,000 Palestinians. More than 200 of its staff members have been killed in Israeli attacks over the past year.

So why has Israel acted against the UNRWA?

Israel has argued for decades that the UNRWA's role is obsolete, and its work to aid Palestinian refugees and their descendants has been an impediment to a peace settlement. However, critics have blamed Israel's own actions, such as not meaningfully recognising the foundation of a Palestinian state, as having perpetuated the longstanding territorial conflict.

Israel has also accused some of UNRWA's 13,000 employees in Gaza of participating in the October 7, 2023 attacks on Israel by Hamas that triggered the war. Israel has given the US a dossier identifying 12 UNRWA staffers who it says took part in the October 7 attacks. According to Israel, most of these alleged attackers worked as teachers in UNRWA schools. It claims to have evidence that UNRWA employed 190 Hamas and Islamic Jihad militants. Although UNRWA fired nine employees after an investigation, it has denied that it aids armed groups on purpose — the agency has been sharing the list of its employees with Israel for a long time.

What are the two Bills that Israel has passed?

One of the Bills bars UNRWA from operating any representative office, providing any service, or conducting any activity, directly or indirectly, in Israel's sovereign territory.

The second Bill cuts all ties between government employees and UNRWA, and takes away the legal immunities of the agency's staff.

Together, the Bills are likely to stop UNRWA from operating in Gaza and the West Bank as Israel controls access to both these Palestinian territories. They could also force the agency to relocate its headquarters from East Jerusalem, according to a report by the Associated Press.

The Bills were passed by overwhelming majorities in the 120-member parliament. Lawmakers from at least two centrist parties joined Prime Minister Benjamin Netanyahu's ruling coalition in voting for the Bills, demonstrating broad support for the measures.

What can be the impact of these measures?

Most of the provisions in the Bills will take effect after three months. Since the beginning of the war, almost all of Gaza's 2 million people have been reliant on UNRWA for basic necessities, including food, water, and hygiene supplies.

Along with the Palestinian Red Crescent, UNRWA handles almost all UN aid distribution in the territory.

The UN agency also recently helped implement an emergency polio vaccination campaign in Gaza to prevent the infectious virus that can cause paralysis from spreading.

In the West Bank, UNRWA currently provides services for 19 refugee camps, more than 90 schools, and several health services, including prenatal care, according to a report by CNN.

In a post on X, UNRWA chief Philippe Lazzarini said on Monday that the ban set “a dangerous precedent” and would “only deepen the suffering of Palestinians”.

“This is the latest in the ongoing campaign to discredit UNRWA,” Lazzarini said.

Relevance: GS Prelims & Mains Paper II; International Organisations

Source: Indian Express

2. How the United States’ electoral college works

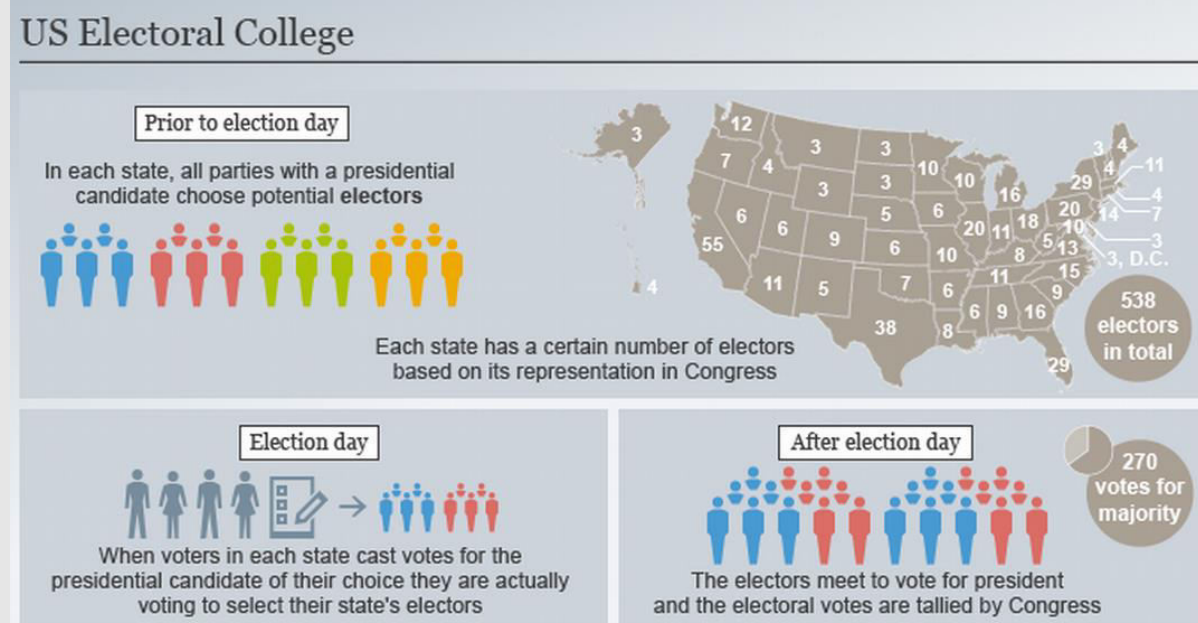
Introduction

The United States is the only democracy in the world where a presidential candidate who wins the highest number of (popular) votes may still lose the election. This has happened at least four times in the past, including twice — in 2000 and 2016 — in this century. The reason is the role played by the Electoral College in the American system.

What is the Electoral College?

In US’s unique electoral system, votes cast by the public in favour of a presidential candidate (the popular vote) are actually meant to elect that candidate’s preferred electors. These electors then vote for the President after the election. The Electoral College is a process comprising the selection of these electors, the meeting where they vote for the President and Vice President, and the counting of the electoral votes by Congress.

How many electors are there in the Electoral College?



The Electoral College comprises 538 electors, and a candidate needs to secure a majority of 270 electoral votes to be elected.

The number of electors varies from state to state. Each state has the same number of electors as the size of its Congressional delegation — one for each member of the House of Representatives plus two for the two Senators.

California, with 54 electors, has the largest allocation in the Electoral College. Six states — Alaska, Delaware, North Dakota, South Dakota, Vermont, and Wyoming — and the District of Columbia are allocated three electors each, the smallest delegations in the college.

Who are these electors?

Prior to the election, the two political parties select a slate of preferred electors in each state. The selection is based on established conventions that vary from state to state and party to party. A party's slate generally comprises long-time members and workers, or people with a personal or political affiliation with the party's presidential candidate.

There are very few provisions in the US Constitution regarding who is qualified to be an elector. Members of Congress or any person "holding an Office of Trust or Profit under the United States" cannot be an elector.

The post-Civil War 14th Amendment also barred state officials "who have engaged in insurrection or rebellion" against the US, or "given aid and comfort to its enemies" from serving as electors.

How are the electors elected?

The Electoral College is chosen by popular vote. This is essentially what the election on November 5 is for. Ballots in many states even mention the names of the respective candidate's slate of electors.

Most states have a "winner takes all" system, meaning whoever wins the popular mandate in the state secures its entire allocation in the Electoral College. This is central to how electioneering works in the US. Candidates tend to focus on states where the race is close — the so-called "swing states" — and have limited incentive to allocate their campaign's time and resources to states where they are either firmly winning or losing.

Two states — Maine (4 electors) and Nebraska (5 electors) — are exceptions to the winner-takes-all system. Both employ a specific form of proportional representation in which the state winner receives two electors, and the winner of each congressional district (who may or may not be the same as the state winner) receives one elector.

What do the electors do?

Electors meet in their respective state capitals on the Tuesday after the second Wednesday in December to cast their electoral votes on separate ballots for the President and Vice President. This is by and large a formality as electors seldom vote for someone other than their party's candidate.

That said, there is no federal law or constitutional provision that requires electors to vote according to the result of the popular vote in their state. But some states require electors to pledge allegiance to the party — failure to honour which can result in their replacement by the party with substitute electors — or bind them by law to honour the popular mandate.

More than 99% of electors in US history have voted as pledged. The 2016 election was the last time a spate of so-called “faithless electors” refused to vote for their party’s candidate. Many were disqualified and replaced, and/ or fined according to specific state provisions.

How did Electoral College come about?

While drafting the constitution, the so-called founding fathers debated how the “National Executive” (now referred to as the President) should be elected.

One proposal was for the President to be elected by Congress, on the lines of the Westminster model which is followed in Britain and most of its former colonies, including India. Those in favour of this system felt that voters could not be trusted with a direct vote, and that a system of direct elections could lead to the President pandering to the “democratic mob”.

The other proposal was to hold direct elections in which the chief executive would be chosen by popular vote. Such a system had not been seen yet, but many Constitution framers believed it would prevent corruption and collusion between the executive and legislature.

Ultimately, the founding fathers arrived at a compromise. “They were tired, impatient, frustrated. They cobbled together this plan because they couldn’t agree on anything else,” political scientist George Edwards III told History.com.

What is the argument in favour of adopting the Electoral College?

Founding father Alexander Hamilton argued that “the process of election affords a moral certainty, that the office of President will never fall to the lot of any man who is not in an eminent degree endowed with the requisite qualifications” while ensuring that “the sense of the people” still operates in the system.

Another stated reason for having an Electoral College was to prevent populous states/ regions from dominating unfairly. “Proponents argue that the Electoral College system contributes to the cohesiveness of the country by requiring a distribution of popular support to be elected president. Without such a mechanism, they point out, presidents would be selected either through the domination of one populous region over the others or through the domination of large metropolitan areas over the rural ones,” William C Kimberling wrote in *The Electoral College* (1992).

And what are some of the major criticisms of the system?

✚ The Electoral College reduces the value of each individual vote in bigger states. For instance, California has roughly 68 times as many people as Wyoming — but only 18 times as many Electoral College votes.

Jesse Wegman, author of *Let the People Pick the President: The Case for Abolishing the Electoral College* (2020), told NPR: "...Representative democracy in the 21st century is about political equality. It's about one person, one vote — everybody's vote counting equally."

✚ The winner-takes-all mechanism inflates the importance of swing states in the eventual result, and does not reflect the votes of millions of Americans who vote for the non-dominant party in a traditionally Red (Republican) or Blue (Democratic) state. Thus, in 2020, Donald Trump got only 68.62% of the popular vote in West Virginia, but secured all four of its Electoral College votes. And Joe Biden won 63.48% of the popular vote in California but all 54 of its Electoral College votes.

✚ The system effectively binds electors to vote for their party, nullifying the intended purpose of preventing unsuitable candidates from getting the top job. Critics argue that the Electoral College has no place in a modern representative democracy — indeed, the system has been scrapped by all other democracies in favour of direct elections for the President.

Relevance: GS Prelims & Mains Paper II; International Issues

Source: Indian Express

3. North Korean troops in Russia: what can Pyongyang move mean, implications for Ukraine war

Introduction

NATO Secretary General Mark Rutte said recently that North Korean troops have been sent to Russia and that North Korean military units have been deployed in the Kursk region. According to a Reuters report, after a briefing from a South Korean delegation, Rutte told reporters, "The deepening military cooperation between Russia and North Korea is a threat to both Indo-Pacific and Euro-Atlantic security."



The Associated Press reported that the US Department of Defense had confirmed that approximately 10,000 troops were in Russia for training and would likely be fighting against Ukraine soon.

Rutte said the North Korean deployment represented "a significant escalation" of Pyongyang's involvement in "Russia's illegal war" in Ukraine, a breach of UN Security Council

resolutions and a "dangerous expansion" of the war. Rutte said the deployment of North

Korean troops was a sign of “growing desperation” on the part of Russian President Vladimir Putin.

North Korean soldiers in Kursk

The Kursk region is a Russian border area where Ukrainian forces staged a major incursion in August this year and presently hold hundreds of square kilometres of territory, marking the first time Ukraine had gained control of Russian territory.

Military experts say that Kursk creates a buffer zone between Ukraine and Russia, making its military control important for both Kyiv and Moscow.

Support extended to Russia by North Korea, in the form of soldiers or in any other form, should not come as a surprise. North Korea’s strong ties with Russia can be traced back to the days of the erstwhile Soviet Union, during the Cold War and the Korean War.

Russia-North Korea ties

In 1945, Soviet troops invaded the Japanese colony of Korea, which was followed by liberation of the Korean Peninsula from Japanese occupation. By agreement with the US, the 38th parallel was used to divide the peninsula, with the Soviet Union in charge of the north and the United States in charge of the south. During the Korean War between 1950-1953, the Soviet Union and China backed North Korea, including militarily.

During the Cold War, the 1961 DPRK-Soviet Union Treaty of Friendship, Cooperation and Mutual Assistance became an important marker of cooperation and friendship between the two countries.

What the West and Ukraine’s allies say

Following an absence of an official “end” to the Korean War, technically, North Korea and South Korea have remained hostile and at war since 1953, although the fighting has stopped. Over the Ukraine involvement issue, South Korea’s President Yoon has expressed concern about the security of his own country. According to a Reuters report, Yoon told Ukraine’s President Volodymyr Zelenskyy that a major security concern for South Korea would be the possibility of North Korea gleaning military experience and knowledge from its involvement in Russia’s war.

There is a consensus among experts that it is unclear and perhaps too early to understand what role North Korean troops may play in the war between Russia and Ukraine. In the big picture, 10,000 troops may not be a significantly large number of soldiers on the ground. However, according to a Reuters report, the Center for Strategic and International Studies (CSIS) think tank said the number of North Korean forces involved “make this more than a symbolic effort”.

It may also be a way to show support for Russia and to emphasise to the larger diplomatic community that North Korea and Russia are not just fair-weather friends but have deeper, lasting ties.

What is clear is that the involvement of North Korean troops has riled the United States and its allies, and perhaps at some level, that was the intent.

The Kremlin had earlier dismissed reports about a North Korean troop deployment as “fake news”. According to a Reuters report, Putin has not denied the presence of North Korean troops in Russia, but said it was Russia’s business how it implements a partnership treaty that Moscow had signed with North Korea’s leader Kim Jong Un in June. A North Korean representative to the United Nations in New York called the reports “groundless rumours”.

South Korea’s stance

Reuters quoted the South Korean Presidential office of Yoon Suk Yeol saying the pace of North Korean troop deployment to Russia had been faster than expected, creating a dangerous situation.

On Tuesday, South Korea’s spy agency, the National Intelligence Service, briefed the country’s lawmakers saying that the armed forces in Russia were trying to teach military terminology to North Korean soldiers. On Wednesday, South Korea’s presidential office said it is considering sending a team of military monitors to Ukraine to observe and analyse the expected deployment of North Korean troops.

However, from North Korea’s perspective, there are several angles to why it may have stepped in to support Russia. There has been some discussion about how adequately trained North Korean soldiers may be to take on fighting in any capacity in a war like the one that has been ongoing for some three years between Ukraine and Russia.

While significant casualties in war may be received negatively or reflect poorly on the country, some North Korea analysts believe that the wages soldiers in Russia get could be one way of injecting much-needed foreign currency for Pyongyang. North Korea may also get more security support from Russia in exchange.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

4. Overview of US Election Administration

Introduction

In the United States, election administration is highly decentralized. Unlike the Election Commission of India, the US Federal Election Commission (FEC) oversees campaign finance laws but does not conduct elections. Instead, elections are managed at the state and local levels, with each jurisdiction determining its own methods for voting and counting.



Voting Methods in the 2024 Election

Voters in the US use one of three main voting methods depending on their location:

1. Handmarked Paper Ballots

Used by 69.9% of voters, handmarked ballots are the most common method. Most states rely on this method exclusively, except for voters with disabilities who may use alternative systems.

2. Ballot Marking Devices (BMDs)

In 25.1% of jurisdictions, voters use BMDs. These devices display a digital ballot, allowing voters to select their choices before printing a paper record for tallying. BMDs, mandated by the Help America Vote Act (HAVA) of 2002, feature accessibility aids such as Braille and audio assistance.

3. Direct Recording Electronic (DRE) Systems

Only 5% of voters will use DRE systems, which are similar to India's EVMs as they cast and store votes electronically. Louisiana exclusively uses DREs without VVPAT, while Nevada relies on DREs with VVPAT for 95.4% of voters.

Shift in Preferred Voting Methods

Prior to 2000, all US jurisdictions used paper ballots. However, the contested 2000 presidential election led to the introduction of electronic voting systems. By 2006, 41.9% of jurisdictions offered DREs. Security concerns over DREs, particularly around hacking and interference, led to a shift back to paper ballots after 2008, a trend that accelerated after the 2016 election.

Counting and Verification of Votes

- **Counting:** Both handmarked ballots and BMD ballots are processed by optical scanners, which count and tabulate the votes.
- **Verification:** After tabulation, states have various self-audit procedures, which may include manual or machine-assisted recounts.
- **Certification:** Final vote tallies must be certified, with Certificates of Ascertainment due by December 11, over a month after Election Day.

Relevance: GS Prelims & Mains Paper II; International Issues

Source: Indian Express

5. Why the US Imposed Sanctions on Indian Entities Amid the Russia-Ukraine War

Introduction

Recently, the United States sanctioned around 400 entities and individuals, including 19 Indian companies and two Indian nationals, for supporting Russia's military efforts in Ukraine.

According to the US State Department, these entities enabled the “prosecution of [Russia’s] illegal war” by supplying Russia with items critical to its weaponry.



Indian Firms Sanctioned

The US sanctioned Indian firms for supplying restricted items—particularly those listed under the Common High Priority List (CHPL), a catalog of 50 essential components jointly determined by the US, EU, Japan, and the UK as critical for Russian weapon systems. Here are some of the named firms and their roles:

1. Ascend Aviation India Private Limited

O Activity: Sent over 700 shipments, worth over \$200,000, of CHPL items, including aircraft components, to Russian companies between March 2023 and March 2024.

2. Mask Trans

O Activity: Supplied over \$300,000 worth of CHPL items, including aviation components, to Russian entities and S7 ENGINEERING LLC (a US-designated entity) from June 2023 to April 2024.

3. TSMD Global Private Limited

O Activity: Shipped at least \$430,000 worth of CHPL items to Russia, including electronic circuits and CPUs, between July 2023 and March 2024.

4. Futrevo

O Activity: Provided over \$1.4 million in CHPL items, including electronic components, to Russian firm SMT-ILOGIC, which manufactures Orlan drones. Shipments occurred between January 2023 and February 2024.

Understanding Economic Sanctions

Economic sanctions limit or sever economic interactions between the imposing entity and the target. Sanctions can vary in scope, from broad restrictions on trade with an entire country to targeted actions against specific companies or individuals.

Types of Sanctions:

- **Import or Export Bans:** Prohibits trade of certain goods or services.
- **Asset Freezes:** Prevents access to financial assets.
- **Banking and Currency Restrictions:** Bans the target from using certain financial systems or currencies.

Examples of US Sanctions: The US frequently applies sanctions to countries like Iran, North Korea, and China. Since the Ukraine war, Russia has become the most heavily sanctioned country in the world. International bodies like the United Nations and the European Union also

have mechanisms for imposing sanctions, though enforcement often relies on individual member countries.

The Impact and Efficacy of Sanctions

Sanctions are used as pressure tools to compel countries or entities to change their behavior by inflicting economic harm. However, their effectiveness is debated:

- **Circumvention:** Targeted countries may find alternative trade partners. For instance, Russia has mitigated the impact of sanctions by increasing trade with India and China.
- **Collateral Effects:** Sanctions can hurt both the imposing and the targeted economies. Industries in the sanctioning country may suffer if they rely on raw materials from the sanctioned entity. Moreover, international organizations like the UN have limited enforcement mechanisms for sanctions, relying on individual countries for implementation.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: The Hindu

6. Why is Brazil Considering Alternatives to the Belt and Road Initiative (BRI)?

Background on Brazil's BRI Stance

Brazil recently indicated it might not join China's Belt and Road Initiative (BRI), making it the second BRICS country, after India, to potentially decline the infrastructure project launched in 2013. This comes following statements from Celso Amorim, President Luiz Inacio Lula Da Silva's chief foreign policy adviser.

Brazil's Approach to China's Initiative

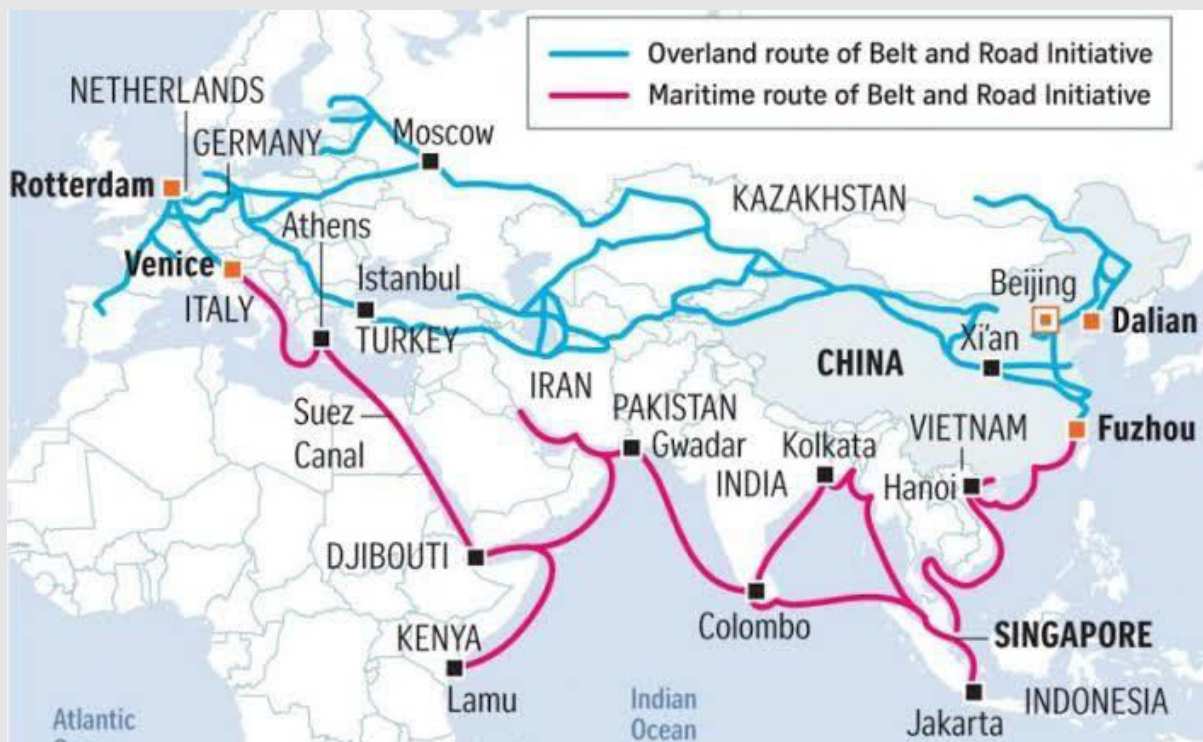
Instead of signing an "accession contract," Brazil prefers a partnership focusing on "synergies" in nationally defined projects. Although not entirely rejecting BRI funding, Brazil is emphasizing infrastructure initiatives that align with its own priorities, such as solar energy and electric vehicles. Amorim also pointed to possible regional and geopolitical collaborations, including a peace plan for Ukraine.

The Timing of Brazil's Decision

Brazil is one of only four South American countries not participating in the BRI, even as it maintains strong trade ties with China. In July, President Lula mentioned that Brazil was evaluating the potential benefits of joining. However, after recent BRICS summits and diplomatic visits, Brazil appears hesitant, with concerns that the risks may outweigh the advantages.

India's Reasons for Staying Out

India declined to join the BRI in 2017, citing concerns over sovereignty (due to projects in Pakistan-occupied Kashmir), risks of debt traps for smaller nations, environmental concerns, and a lack of transparency in the BRI's broader geopolitical aims.



Challenges Facing the BRI

Now over a decade old, the BRI has lost some appeal. China's economic slowdown and less generous loan terms post-COVID have impacted the initiative, with countries like Sri Lanka facing heavy collateral demands. Additionally, the U.S. has lobbied against the BRI, influencing countries like Italy, which recently opted not to renew its BRI MoU.

Brazil's Diplomatic Balancing Act

Amid U.S. concerns and protests from China, Brazil is carefully weighing its options. Observers speculate that President Lula may keep Brazil's stance flexible, especially with U.S. elections looming and President Xi Jinping's visit to Brazil scheduled for later this month.

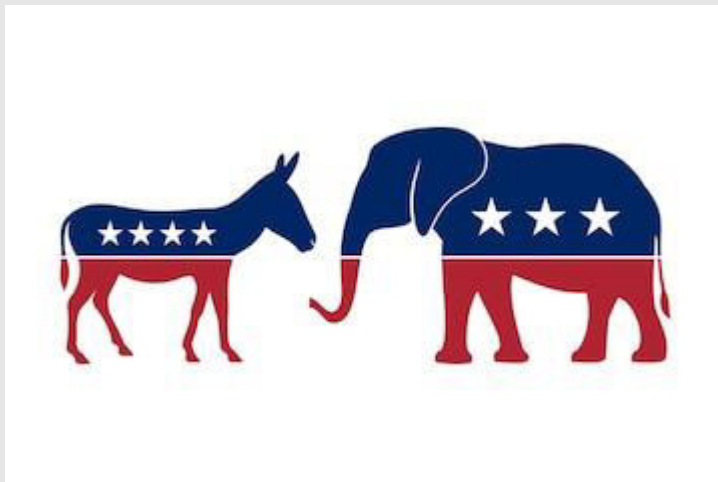
Relevance: GS Prelims & Mains Paper II; International Issues

Source: The Hindu

7. Why Donkeys and Elephants Represent Democrats and Republicans in U.S. Politics

Origins of the Symbols

In U.S. politics, the donkey represents the Democratic Party, while the elephant represents the Republican Party. This association dates back over a century and was popularized through political cartoons. The person behind these enduring symbols was Thomas Nast, a prominent political cartoonist in the late 19th century.



Thomas Nast's Influence

Thomas Nast, often called the "father of the American political cartoon," used satire to depict the political landscape. He was known for supporting the Republican Party and often ridiculed Democrats through his art. His cartoons simplified complex political ideas into relatable images, making them powerful tools for influencing public opinion. Abraham Lincoln even referred to Nast as his "best

recruiting general" due to his impactful illustrations.

The Donkey and Elephant: Satire in Symbols

In 1870, Nast used a donkey to represent certain Democrats he disliked, showing it kicking a dead lion in a cartoon titled "A Live Jackass Kicking a Dead Lion." The donkey was originally intended as a satirical insult. However, Democrats had encountered the symbol earlier, when Andrew Jackson's opponents mockingly called him a "jackass" during his 1828 presidential campaign. Jackson embraced the donkey, reframing it as a symbol of determination rather than obstinance.

For the Republicans, Nast chose the elephant to represent them, portraying it as a large, strong animal but also one that could be vulnerable. In his 1874 cartoon "Third-Term Panic," he illustrated a fearful elephant about to stumble off a cliff, critiquing the Republicans' indecision over a potential third term for President Ulysses Grant. The elephant symbolized both the strength and the sometimes misguided direction of the Republican Party.

Official Adoption and Evolving Depictions

Over time, these symbols gained popularity, especially as party loyalty grew among voters. Political divides softened in some periods, leading cartoonists to draw the animals with softer, more rounded features. Today, with renewed political polarization, these depictions may once again reflect the intensity of partisan divides.

Relevance: GS Prelims

Source: Indian Express

8. Why presidential elections are always held on a Tuesday in the month of November

Background on Brazil's BRI Stance



Since the mid-nineteenth century, the US has had its Election Day on the first Tuesday after the first Monday of November — a choice dictated by the nature of the US economy, the Christian faith of most of its citizens, and criticisms of the previous system.

Month-long elections

Until 1845, states were allowed to hold elections at any time within a 34-day period before the Electoral College met to certify the next President in December. In 1844, for instance, the presidential election was held over a one-month period between early November and early December.

In 1845, Congress passed a law to set a single election day for the entire country. There were two main reasons behind this.

* By the mid-1800s, states were expanding the right to vote to non-landowning white men who were above the age of 21. This significantly increased the scale of elections, and led to calls for streamlining the voting process.

* Critics of the previous system believed that having more dispersed elections led to situations where early voting and declaration of results in some states impacted the turnout and voting behaviour in states which cast their ballot on a later date.

Initially, the law pertained only to presidential elections. But its scope was later expanded to also include Congressional and other elections as well.

Choice of a single day

The question then was which day should be chosen as Election Day.

The US in the nineteenth century was predominantly an agrarian country, and most voters resided in rural areas. They figured prominently in Congress' choice of a date.

November was chosen as the month of voting because it did not coincide with the busy spring planting season or the autumn harvest. And the harsh winter was a month or more away.

The choice of day was trickier, based on both religious and economic considerations.

Given that many rural voters had to travel all day to cast their ballot in the nineteenth century, Sunday, Monday, and Saturday were ruled out, because that would lead to people missing church. Wednesday was ruled out because it was a popular market day across the country, when farmers travelled to nearby towns and cities to sell their produce.

Ultimately, Congress settled on the first Tuesday after the first Monday. This was to prevent Election Day from falling on November 1, when Christians observed All Saints' Day and merchants typically settled their books from the previous month.

In recent years, the choice of this day has copped criticism with less than 12% of the US now in agriculture, and people having to miss work to cast their vote.

Relevance: GS Prelims; International Issues

Source: The Hindu

9. Election Day in US: Here's what to know

Introduction

Tuesday is Election Day in the United States in what some commentators have described as the most consequential presidential election ever. And the race to the White House is as close as it gets.

Democratic nominee Kamala Harris has a slight edge over Republican Donald Trump in the national polling average as of Sunday (in the US). But the winner-takes-all Electoral College system means the presidency will be decided by the way the seven so-called "swing states" fall — and the race is much closer there.

Election mechanics

Americans do not directly vote for their President. Instead, they vote to determine the composition of the Electoral College, which elects the President.

There are 538 electors in the Electoral College, and 270 is the majority mark. Each state is allocated a specific number of electors, which is somewhat based on population.

A vote cast in favour of a certain candidate is, in effect, meant to elect the candidate's slate of electors in a state, who are chosen by the parties prior to the election. To win the presidency, a candidate needs to cobble together victories in enough states to reach the 270 mark in the Electoral College.

Most states (with the exception of Maine and Nebraska) have a winner-takes-all system, which means whoever wins the popular mandate in the state secures its entire allocation in the Electoral College. This makes the result in most states — which are either firmly Democratic or Republican — a foregone conclusion before the first ballot is cast. It also means that certain states where the race is particularly close have outsize importance in the election.

State of the race

Seven swing states — Pennsylvania (19 Electoral College votes), Georgia and North Carolina (16 each), Michigan (15), Arizona (11), Wisconsin (10), and Nevada (6) — hold the key to the White House this time. Both the Harris and Trump campaigns have targeted these states.

In 2020, Florida, the largest swing state (30 electoral votes) in that election, voted decisively Republican — and will likely go to Trump again.

The final The New York Times/ Siena College opinion poll published on Sunday showed Harris and Trump locked in tight races in all seven states, well within the poll's margin of error. The Vice President held marginal leads in Nevada, North Carolina, and Wisconsin; the former President was just ahead in Arizona. The races in Michigan, Georgia, and Pennsylvania, together accounting for 50 electoral votes, were tied.

In 2020, President Joe Biden won six of these seven states (with the exception of North Carolina). The party is not expected to do as well this time.

What's at stake?

The stakes for the US — and the rest of the world — are extremely high. Since Trump's surprise win in 2016, American politics has continued to become steadily more polarised. This political division is reflected both in the candidates' policy positions on major issues, and in the issues they have prioritised in the campaign.

ECONOMY: According to most polls, this is the top issue for voters. Biden inherited an economy battered by the Covid-19 pandemic, and the rate of inflation has since gone from a peak of 9.1% in June 2022 to 2.4% in September 2024. The unemployment rate has fallen from 6.4% in January 2021 to 4.1% in October 2024. These positives have not, however, improved sentiment among common voters, many of whom believe the economy is doing badly, according to polls.

One reason for this perception is that grocery bills have remained high. Food is 22% costlier since Biden's inauguration, and for many Americans, the cost of living is higher than four years ago. Trump has promised to "make America affordable again". He has said he will increase oil-drilling to reduce energy costs, deliver lower interest rates (something that the President does not control), provide tax cuts to the tune of trillions of dollars, and introduce a new 10-20% tax on imports to incentivise domestic manufacturing.

Harris, on the other hand, has promised to ban price-gouging on groceries, help first-time home buyers, increase housing supply, raise the minimum wage, and tax big businesses and rich individuals more to fund welfare measures. She has been critical of Trump's blanket import tariffs policy.

IMMIGRATION: This was Trump's pet issue in 2016 and 2020, and it has been a highlight of his 2024 campaign. He has vowed to seal the border with Mexico, and increase funding for Immigration and Customs Enforcement (ICE), the agency that polices immigration into the US. He has also promised the biggest mass deportations of undocumented migrants in US history. Harris, too, has promised tough action against illegal migration. She has repeatedly invoked her actions as a public prosecutor in dealing with human traffickers, and promised to revive a border control law that failed in Congress (in part due to Trump's objection), which would

close loopholes in the asylum process, and give the President greater authority to shut down the border.

This has, however, invited criticism from some people who would traditionally vote Democrat. Harris has been buffeted from both sides on this issue — the Republicans are saying she is not tough enough, while left-wing or progressive Democrats are criticising her for being too hawkish.

ABORTION: The Harris campaign hopes this will be her trump card. The Vice President has positioned herself as a champion of reproductive rights, and has promised to bring national legislation on abortion rights.

Abortion has been a huge concern for women voters after the Conservative-majority Supreme Court overturned the landmark Roe v Wade verdict in 2022. According to The New York Times, 21 states have banned or restricted abortions earlier in pregnancy than what was set by Roe v Wade over five decades ago.

Trump has been shaky on this issue — he has taken credit for appointing the three judges that cemented the Supreme Court's conservative majority, but has avoided talking much about abortion. The New York Times/ Siena poll has found that "the gender gap remains wide across all seven states, with Harris the favorite of women and Trump preferred by men", according to The New York Times.

FOREIGN POLICY: The US is indirectly involved in the ongoing conflicts in West Asia and Ukraine. Harris represents the status quo of the US foreign policy, while Trump's isolationism is seen as a major departure.

So, Harris has promised to keep up support for Ukraine "for as long as it takes", while Trump has long advocated disentangling the US from conflicts worldwide — including in Ukraine. He has claimed that he will negotiate an end to the war with Russia's President Vladimir Putin "within 24 hours".

On the Israel-Palestine issue, their positions are broadly similar. Harris has made some outward gestures towards Palestinians and called for an end to the war in Gaza, but she has been careful to not be overly critical of Israel. This has angered American Muslims and young, college-going voters — both traditionally Democrat-voting groups.

CLIMATE: Trump has been open about not caring much for climate change. During a campaign rally last week, he said: "So they talk all the time about the ocean will rise in 500 years, one-eighth of an inch, who the hell cares?"

During his time in the White House, he rolled back hundreds of environmental protections, pulled out of the Paris Agreement (which Biden re-entered), attacked electric cars, and expanded the US carbon footprint. Climate scientists fear if elected Trump will dismantle the

National Oceanic and Atmospheric Administration (NOAA), which does crucial work to document and research global warming and its impact.

As Vice President, Harris has helped pass legislation that has sent hundreds of billions of dollars to renewable energy, and provided for electric vehicle tax credit and rebate programs. However, during her campaign she has dropped her opposition to fracking, much to the chagrin of environmentalists.

On paper at least, a Harris presidency appears to hold out more hope for the planet than Trump 2.0.

Relevance: GS Prelims; International Issues

Source: Indian Express

10. Five Reasons Why Donald Trump Won & Democrats Lost the 2024 Presidential Election

Introduction

Donald Trump will be the next President of the United States, after leading the Republican party to a historic election victory. The former president has garnered 51% of the popular vote, compared to the Democrats' 47.5%, and is projected to win upwards of 300 votes in the Electoral College, well above the majority mark of 270.



This will be the first time that the Republicans have won the popular vote since 2004, when incumbent George W Bush won 50.7% of the national vote, and the Democratic challenger John Kerry 48.3%. In fact, this might end up being the party's best performance since 1988,

when then Vice President George HW Bush basked in the afterglow of his popular predecessor Ronald Reagan to win more than 53% of the national vote, and 426 Electoral College votes.

1. Anti-Incumbency and Voters' Economic Misery

Economic dissatisfaction played a central role in Trump's victory. Despite improvements in economic indicators under the Biden-Harris administration, many voters were still feeling the impact of inflation, unemployment, and economic downturns linked to the pandemic and global crises like the Ukraine war.

- **Lingering Memories:** Voters seemed to focus more on the hardships they experienced during the pandemic rather than current improvements.
- **Trump's Economic Legacy:** During Trump's presidency, the stock market was robust, unemployment was low, and inflation was under control, making his return appealing to voters dissatisfied with the status quo.

2. Overwhelming Support from Rural America

Republicans have traditionally performed well in rural regions, and Trump capitalized on this trend in 2024.

- **Increased Turnout in Rural Areas:** Rural counties, particularly in swing states, saw higher voter turnout, with Trump outperforming his 2020 numbers.
- **Democrats' Disconnect:** Rural voters feel neglected and misunderstood by Democrats, who they view as the party of the coastal elite. Efforts to court rural voters have been undermined by perceptions of elitism, exemplified by past remarks like Hillary Clinton's "basket of deplorables" comment and popular media portraying rural America in a negative light.

3. Expanding Support Among Minorities

Contrary to traditional voting patterns, Trump made significant gains among minority groups, challenging Democrats' assumption that they have a lock on these communities.

- **African American and Hispanic Support:** Trump made inroads in counties with significant minority populations, like Georgia's Baldwin County, and improved his standing among Latino men.
- **Broad Coalition:** Trump's success in building a coalition of rural, low-educated, blue-collar voters with pockets of Hispanic and Black support proved to be a decisive factor. His focus on issues resonated more effectively than Harris' campaign, which critics say became overly fixated on social media trends.

4. Gender Dynamics Did Not Favor Harris

Kamala Harris had hoped to mobilize women voters, especially in the wake of the Supreme Court's decision to overturn Roe v. Wade. However, this strategy did not yield the expected results.

- **Gender Gap:** While Harris led among women by 14 percentage points, Trump had a 22-point lead among men, which was too significant for Harris to overcome.

- **Missed Mobilization:** Despite focusing on reproductive rights, which was expected to galvanize female voters, Harris failed to significantly boost turnout among women, particularly in suburban areas where Democrats typically perform well.

5. Democrats' Perceived Hypocrisy vs. Trump's Authenticity

The Democrats have long positioned themselves as defenders of democracy and liberal values. However, actions during Biden's presidency, especially in foreign policy, were perceived as contradictory to these principles.

- **Foreign Policy Criticisms:** The Biden administration's unwavering support for Israel during the Gaza conflict alienated Arab American voters, especially in key swing areas like Michigan's Dearborn. This contributed to lower turnout among traditional Democratic bases.

- **Trump's Authenticity:** In contrast, Trump's unapologetic, straightforward approach appealed to voters tired of what they saw as Democratic doublespeak. While Trump may be seen as dishonest, his lack of pretense about who he is won him respect among voters who valued perceived honesty over policy contradictions.

Conclusion: Trump's victory in 2024 was driven by voter dissatisfaction with the status quo, effective mobilization of rural and minority voters, and a perception of authenticity that contrasted with the Democrats' perceived inconsistency. While Harris and the Democrats campaigned on social justice issues, they struggled to connect with voters facing economic and cultural discontent.

Relevance: GS Prelims; International Issues

Source: Indian Express

11. As Canada tightens permanent residency, how a positive LMIA can help international students seeking to stay on

Introduction

Recent changes in Canada's immigration policies, including a 20% cut in permanent residency (PR) allocations, have complicated the path to PR for international students.

Among the limited options available to remain in Canada legally and to gain more points for PR, is a positive Labour Market Impact Assessment (LMIA), which shows that there is a need for a foreign worker for a certain job. This document is key for students whose work permits, which they got after completing their studies, have either expired or are about to run out.

What is the LMIA?



The LMIA allows Canadian employers to hire foreign workers when they can't fill a position with Canadian citizens or permanent residents. To get a positive LMIA, employers must demonstrate a genuine need for a foreign worker by posting the job on Canada's official website, and going through a rigorous approval process.

The official processing fee for an LMIA application is CAD 1,000, which should be paid

by the employer. However, several immigration experts in Punjab said that given the high demand currently, up to five times the official fee is changing hands in order to secure a positive LMIA through agents or employers.

How can the LMIA help?

Experts said that with PR opportunities reduced, international students who want to apply for PR to stay in Canada permanently are being advised by the consultants to try the LMIA route. Obtaining an LMIA-supported job offer can extend a student's stay and provide valuable Canadian work experience, which boosts their PR application profile. Experts advise students to work diligently in their current jobs so that their employers might cover the LMIA fees, as several employers have started charging students for LMIA applications.

What sort of jobs offer better opportunities for Indian students seeking to stay on in Canada? Sectors such as healthcare, construction, and agriculture are experiencing labour shortages in Canada, and creating demand for LMIA-based roles. Positions such as drivers, farm workers, cooks, welders, and caregivers are among those frequently filled by LMIA applicants.

What other alternatives are available to Indian students seeking Canadian PR?

Consultant Tirath Singh of Jalandhar-based Pinnacle Immigration said that LMIA remains the best option right now, even for those who are still studying.

Apart from that, "visitor record" is an option, he said. "Students can apply for a visitor record, which is a document that allows them to stay on in Canada for longer. However, this option does not permit them to work and is generally seen as a temporary solution," he said.

Aspirants can also consider a Study Visa for further education. Some students are considering returning to school to extend their stay in Canada. Experts recommend choosing degree programmes that add points for PR eligibility and offer skills that are valuable in Canada's job market.

Language skills are also important, Tirath Singh said. "Learning French can be beneficial, as it can add points to a PR profile under Canada's Express Entry system, particularly for those applying to provinces with high demand for bilingual applicants," he said.

But does an LMIA guarantee PR?

A positive LMIA is a helpful step toward PR, but doesn't guarantee it.

International students with LMIA-backed work experience are better positioned under Canada's Express Entry system, which prioritises candidates with Canadian work experience. However, they must still meet all Express Entry requirements, including language proficiency, work experience, and education, experts said.

They added that if the employee is dedicated, efficient, and sincere in his LMIA, it can help in getting PR.

Relevance: GS Prelims; International Issues

Source: Indian Express

12. Taking stock of the International Solar Alliance

Introduction

At the 2015 climate conference in Paris, India in collaboration with a few other countries including conference host France, set up the International Solar Alliance (ISA) to accelerate the deployment and absorption of solar energy across the world, and mainly in the developing countries.

The ISA was a unique initiative in which India took the lead in establishing a global organisation. Over the years, the ISA has evolved into an intergovernmental organisation with more than 110 countries as members. However, its impact on expediting the deployment of solar energy in the developing world has been extremely modest until now.

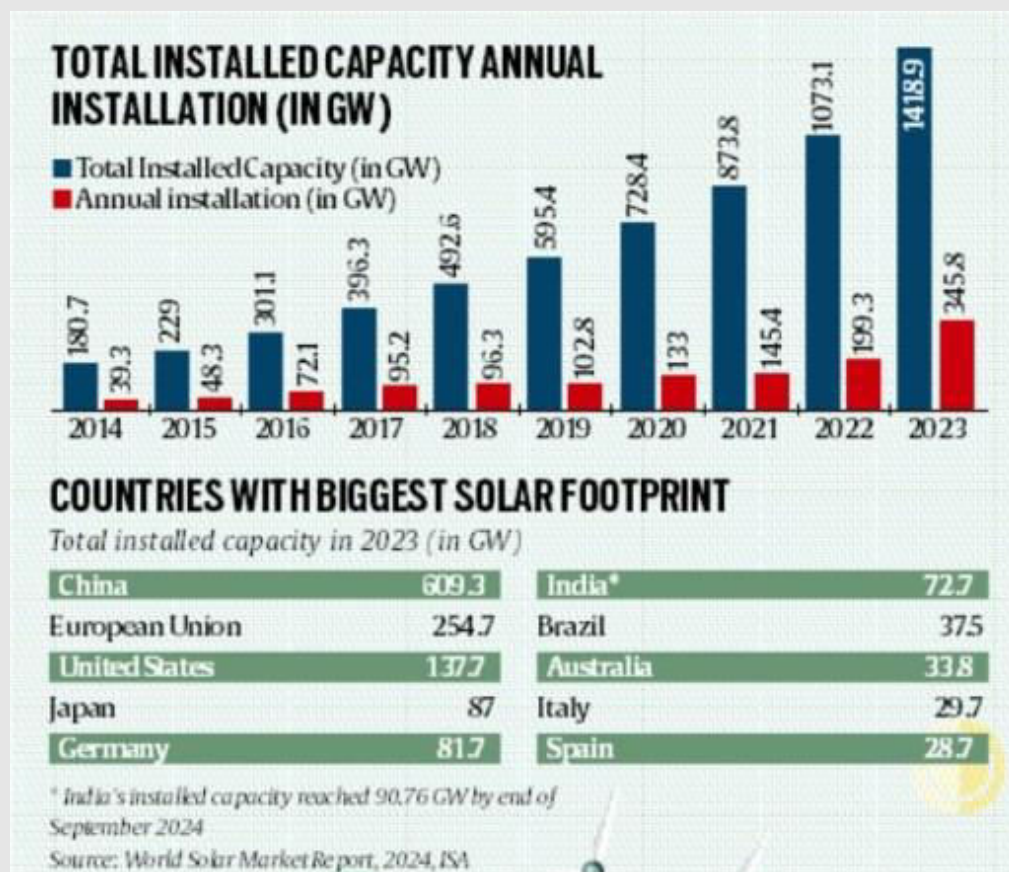
ISA slow on delivery

The ISA was never meant to be a project developer. It did not have to install solar projects itself. It was envisaged as a facilitator, or a force multiplier, which would help countries overcome financial, technological, regulatory, or other barriers in harnessing solar energy.

The end result was supposed to be large-scale deployment of solar energy, especially in countries where energy access was very low. But nine years down the line, the ISA doesn't have much progress to show. An ISA-facilitated solar power project is yet to start operations.

The first such project is expected to be in Cuba where auctions have taken place and a developer has been selected to set up a 60 MW plant, which is supposed to be followed by several other similar-sized or bigger projects totalling about 1,250 MW.

Several other countries in Africa and Latin America are said to have completed the preparatory work, and are ready to follow Cuba's example.



China ahead of pack

The inability of ISA to facilitate many more projects is striking, considering the rapid growth in solar energy deployment. The global installed capacity of solar power has been increasing at over 20 per cent annually over the last five years. Last year, it grew by more than 30 per cent, according to World Solar Market Report 2024, a publication of the ISA.

But as Ajay Mathur, director general of ISA, pointed out, most of these installations are happening in a handful of countries, with China accounting for a lion's share. Of the 345 GW of solar capacity addition in 2023, more than 216 GW, or about 62 per cent, happened in China alone.

"More than 80 per cent of investments into solar energy are flowing in to developed countries, China, and large developing countries like India," Mathur said.

Barriers and solutions

"There are large entry barriers in smaller developing countries, particularly in Africa. This is what ISA has been engaged in ironing out," Mathur said.

Many of these countries do not have prior experience of executing large power projects, and certainly not solar projects, which is newer technology, he said. "There are no local developers,

so the investment has to come from foreign companies. But foreign investors look for policy stability and sound regulatory environment.”

The ISA has been working with governments and local institutions to create regulatory structures, draft power purchase agreements, and train human resources. “One of our important interventions has been the setting up of STAR (Solar Technology and Applications Resource) centres in partnership with local institutions. This has resulted in local expertise and capacity building,” Mathur said.

Mathur said the results of these efforts would become visible soon.

“I think the heavy lifting has been done in the last few years. At least half a dozen countries are on the verge of floating tenders for power projects. We expect this to escalate quickly,” he said.

ISA has been targeting deployment of 1,000 GW of solar energy, and unlocking a trillion dollars in solar investment by 2030.

Why solar matters

Solar is the most crucial element of the global energy transition that is critical to tackle the challenge of climate change. It is the fastest-growing renewable energy source, despite its inherent limitation of being intermittent. In most regions of the world, solar is now also the cheapest source of energy when sunshine is available. Solar energy installed capacity is projected to grow between 3 and 15 times in different scenarios for achieving global net zero by 2050.

But as Mathur pointed out, only a handful of countries have been deploying it on a large scale (see box). About 43 per cent of global solar PV capacity is installed in China alone. The top 10 markets account for more than 95 per cent of installed capacity. Less than 2 per cent of new additions are happening in Africa, a region that houses about 80 per cent of the nearly 745 million people who still do not have access to electricity.

The solar manufacturing industry is even more imbalanced. Over 80 per cent of the manufacturing process is concentrated in China, which is seen as another barrier to quick spread of solar energy in smaller markets.

In fact, it is this lopsided nature of solar development that the ISA was meant to address and balance.

India’s leadership role

Deployment of solar energy is only a vehicle. The ISA was created to serve a much larger strategic purpose for India. It is an important part of India’s outreach to the Global South, particularly to countries in Africa.

Despite being an inter-governmental multilateral organisation, ISA is still largely viewed as an Indian initiative. This is not without reason — it is headquartered in New Delhi, it is almost entirely funded by India, and India has presided over its general assembly since its inception. It will continue to do so, at least until 2026.

ISA is thus intricately linked to India's diplomatic objectives. For this reason, the ISA's performance would reflect on India's capabilities to claim leadership of the Global South and speak on its behalf. Prime Minister Narendra Modi himself has been championing its cause, and has spoken about its crucial role at every relevant forum.

Unfortunately, the ISA's good offices have remained largely underutilised till now. It has been under-staffed and under-funded, and has had a troubled relationship with the Ministry of New and Renewable Energy, which is its liaison ministry with the Indian government.

But more importantly, it has failed to create excitement about solar energy in countries that are in desperate need of access to cheap and reliable energy source.

Relevance: GS Prelims & Mains Paper II; International Organisations

Source: Indian Express

13. What Trumponomics means for India, the world

Introduction



The radical economic outlook presented by Donald Trump includes plans to impose a 20% tariff on all imports and more than 200% duty on cars; a proposal to deport millions of irregular immigrants; and to extend tax cuts at a time when the US budget deficit is at record high. Should he walk the talk after taking charge early next year, these proposals could present

some macroeconomic challenges.

The coming presidency is seen as a positive for American stocks and the Dollar, even as it raises some concerns for treasuries given the risk of fiscal profligacy. Trump 2.0 could also potentially throw up challenges for India's growth imperative amid possible disruptions in global supply chains, trade wars and tariff barriers, heightened forex volatility, and headwinds to global fund flows.

A possible dilution of the Federal Reserve's rate-cut agenda in the light of a changed macroeconomic situation in the US would also impact the trajectory of India's monetary policy

— given that the RBI may first try to resolve the uncertainties before undertaking any significant rate-cut action.

Bitcoin surged to a record high of more than \$75,000 on Tuesday, as crypto investors celebrated the return of Trump, who has earlier pledged to make the US “the bitcoin superpower of the world”.

Inflation impact, Fed stance

Higher tariffs and a trade war would most certainly lead to higher inflation in the US. This, combined with runaway deficits and a possible dilution of institutional autonomy could lead to foreigners beginning to rethink if they should lend unlimited money to the US Treasury — which has been a given thus far.

Such a shift could mark a possible watershed moment — of the scale, perhaps, of the decision in early 2022 to freeze Russian foreign assets, which forced central banks around the world, including RBI, to buy physical gold rather than derivatives or exchange-traded funds that track the yellow metal’s price.

The Fed’s decision to continue its rate-cut cycle depended strongly on the result of the presidential election — and experts believe that the full scale of the cycle may now be at risk. While Trump’s promised tax cuts and tariff barriers could end up stimulating the American economy, at least in the short term, analysts predict they could eventually stoke inflation — and likely force the Fed to end its rate-cutting cycle sooner.

That could have implications for the monetary easing plans of other countries, including India. Such policies may pause the interest rate cycle globally, ICICI Securities said Wednesday, adding that it could “set in motion higher tariffs and tax cuts, usher in fiscal deficit pressure and become a vehicle for inflationary tendencies”.

As a domino effect, the US dollar could weaken — like in Trump 1.0, “when the dollar index fell and fiscal deficit rose”, the brokerage said in a report.

Rates and the forex market could be a casualty. “The spillover of bond and FX volatility via the global financial markets route would mean the aim of financial stability may precede inflation management and...central banks, including the RBI, would want to see these uncertainties resolved before acting. This makes the December rate cut call tricky and possibly a shallower rate-cut cycle, following the Fed,” an analyst at Emkay Global said.

Green card, demand outlook

While Trump’s promise to curb both legal and illegal immigration could be inflationary in a full-employment situation, as the US has experienced in the past months, the President elect also proposed recently to “automatically” giving green cards to foreign nationals who graduate from an American college.

"...What I will do, is you graduate from a college, I think you should get automatically...a green card to be able to stay in this country," he had said on a podcast that aired on June 21. This could be a positive for Indian students in the US.

Domestic investment demand-related themes and financials could benefit from a weak US dollar on account of lower import costs and elevated interest rates respectively. In the near-term, however, the proposed reduction in the corporate tax rate (21% to 15%) could free up the budget for US-based end clients of India service providers, driving better demand. This is a possible reason why IT stocks rallied in Wednesday's trade in India.

Elon Musk's likely rise

The possible induction of Elon Musk into the new administration could have repercussions for India. A proposal rushed through by New Delhi to accommodate Musk's demand to import Tesla cars at a lower duty earlier this year was not quite accepted by the President elect's billionaire supporter. There could be pressure now to sweeten the deal further.

The lobbying for Musk in other areas such as satellite spectrum allocation or space launches could also get more vocal across key global markets, including India.

Fed meet, China stimulus

There are two external events to watch out for now. The first is the Fed's monetary policy meeting on November 6-7, where the Federal Open Market Committee — the bank's key rate-setting panel — is expected to share its renewed outlook on inflation.

The second is the ongoing meeting of the Standing Committee of the National People's Congress, the executive body of China's top legislature, which convened in Beijing for a five-day meeting on Monday. The committee is expected to sign off on a second economic stimulus package in a little over a month — which could direct more funds towards buying idle land and property, recapitalising banks, refinancing local government debt, and offering assistance to households.

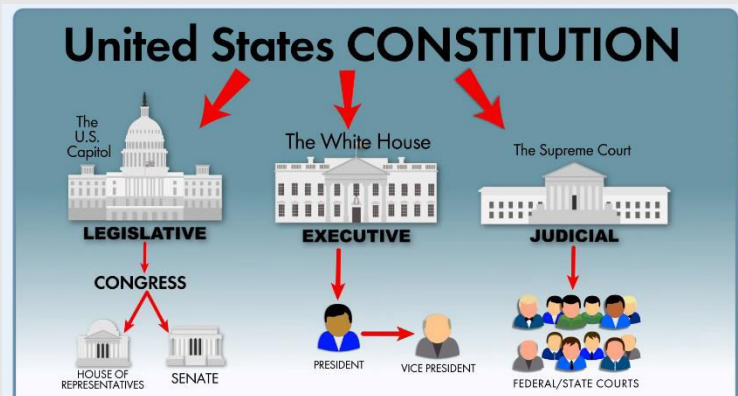
The high tariffs on Chinese goods promised by Trump could shave more than 2 percentage points off China's growth during the next year, according to analysts. Beijing could, therefore, push a bigger stimulus package. Nomura anticipates the eventual scale of China's fiscal stimulus package to reach 2-3% of GDP annually over the next several years. This could make other markets, including India, less appealing to FPIs and other key investors.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

14. Republicans win Senate; race to control House continues: Everything you need to know about US Congress

Introduction



Amid the fiery fight for the presidency between Democratic candidate Kamala Harris and Republican candidate Donald Trump — which the latter has won comfortably — there has not been much focus on the race to control Congress.

Congress is a crucial part of American politics as it is the legislative branch of the US government. It comprises two parts: the US Senate and the US House of Representatives.

As of Wednesday evening, Republicans have won the Senate and the bid to control the House continues.

Here is a look at the two chambers of Congress, their functions, the status of the elections, and what winning control of Congress means for the president.

What is the House of Representatives?

The House is the lower chamber of Congress which is composed of 435 elected members, divided among the 50 states in proportion to their total population. This means that states with large populations have more representatives than small states have. There are also six non-voting members who represent the District of Columbia, the Commonwealth of Puerto Rico, and four other territories of the US: American Samoa, Guam, the US Virgin Islands, and the Commonwealth of Northern Mariana Islands, according to the official website of the White House.

The House is headed by the Speaker of the House who is elected by representatives. Usually, whichever party has a majority in the House gets to choose the Speaker.

Each representative is elected to a two-year term. They must be at least 25 years old, a US citizen for at least seven years, and a resident of the state (but not necessarily the district) they represent.

What is the Senate?

The Senate is the upper chamber of Congress which comprises 100 Senators — two for each state. Until the 17th Amendment to the US Constitution in 1913, Senators were elected by the state legislature and not through popular vote. However, after the amendment was enacted, Senators began to be elected to six-year terms by the people of each state. About one-third of the Senate goes for reelection every two years. A person needs to be at least 30 years old to become a Senator, and they must be a US citizen for at least nine years, and a resident of the state they represent.

The Vice President serves as President of the Senate and may cast the decisive vote in the event of a tie in the Senate.

What do the House and Senate do?

The House and Senate together make and pass federal laws, introduce bills and resolutions, and enact amendments. The members of the two chambers also serve on different committees to develop specialised knowledge on the matters under that committee's jurisdiction, according to a report by The Policy Circle, a non-profit organisation based in the US.

There are, however, some differences in the powers of the two chambers. For instance, the House has the exclusive power to initiate revenue Bills, impeach federal officials, and elect the president in case of an Electoral tie.

The Senate, on the other hand, has the sole power to approve or reject treaties, and confirm or deny the President's appointments — such as that of Supreme Court justices — that require consent. There are two exceptions to this: the House must also approve appointments to the Vice Presidency and any treaty that involves foreign trade, the White House website said. The Senate also tries impeachment cases for federal officials referred to it by the House.

What is the status of the elections?

On November 5, 34 seats in the Senate and the entirety of the House of Representatives were up for elections.

Republicans got back control of the Senate after four years by pushing their tally to 52 — a party requires 50 seats to get the majority. Before Wednesday, Democrats had a thin majority in the Senate. They had 48 Senators and the support of three independent senators who backed the party on important votes.

In the race for the House, Republicans are leading Democrats by around 20 seats as of Wednesday evening, according to The New York Times. While Republicans have 197 seats in their account, Democrats have 177 — the majority mark is 218. As the race is expected to be close, it could take days or even weeks to count enough votes to assess the final winner.

How does winning control of Congress help the president's agenda?

With polarisation running deep in American politics, especially in recent years, it has become increasingly important for the president to have their party's control over both the Senate and House. A divided Congress could force the president to ignore some campaign promises and focus on bipartisan priorities, and enact desired legislation through executive actions.

Having control of the Senate is also crucial. For instance, it can allow the president to appoint judges in different courts, including the Supreme Court. Notably, during his first term, Trump was able to get 234 judges confirmed, including the three who now sit on the Supreme Court who proved integral to overturning *Roe v. Wade*, according to a report by Vox.

A majority in the House helps advance the president's legislative agenda. For example, Republicans are eyeing to take control of the lower chamber to renew the tax cuts that they passed in 2017.

However, while presidents often first sweep into office with their party controlling both the House and Senate along with the executive branch, every president since 1980 has faced divided government.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

15. The Rise of the 4B Movement: "No Sex with Trump Voters"

The Rise of the 4B Movement: "No Sex with Trump Voters"

With Donald Trump's return to the White House, the US has seen the resurgence of the '4B' movement on social media. This movement involves women rejecting sex and marriage as a protest against patriarchal systems. The movement is gaining traction among those disillusioned with Trump's supporters, many of whom hold anti-progressive views on women's rights, although a significant number of women also voted for him.



What is the 4B Movement?

The term "4B" originates from South Korea and stands for four "no's" in Korean:

Bihon: No marriage

Bichulsan: No childbirth

Biyeonae: No romance

Bisekseu: No sexual relationships

The movement, rooted in radical feminism, argues that heterosexual relationships perpetuate oppression. Its proponents believe that women can only achieve true independence by breaking free from societal expectations tied to love, marriage, and family life.

Historical Context: Origins in South Korea

The 4B movement began in South Korea around 2016 after the murder of a young woman in a Seoul subway by a man who claimed he felt ignored by women. This period also saw a surge in reports of women being secretly filmed by spycams, often with little support from law enforcement. The #MeToo movement further fueled women's advocacy for their rights in South Korea.

Criticisms of Patriarchy and Gender Roles

The movement critiques societal norms where women bear the burden of domestic duties, child-rearing, and face workplace penalties for motherhood. In contrast, men's responsibilities are often limited to financial provision. The 4B movement calls for men to actively contribute to a gender-just society before women engage in romantic or sexual relationships.

A Focus on Women's Independence and Solidarity

Beyond rejecting men, the 4B movement emphasizes women's self-empowerment and solidarity. It encourages women to prioritize personal goals, happiness, and independence rather than conforming to traditional roles as wives or mothers. The movement also supports building strong bonds among women, which can include but is not limited to lesbian relationships, as a way to foster mutual support.

The Expansion to 6B4T

The 4B movement has evolved into "6B4T" for some followers, which extends its principles to rejecting:

- a. Misogynistic firms
- b. Fandom cultures
- c. Beauty standards imposed by the male gaze

Arguments Against 4B's Approach

While some dismiss the movement as radical, there are thoughtful critiques as well:

- 1. Lack of Accountability:** Critics argue that isolating from men places the burden on women to avoid oppression, rather than holding men accountable for change.
- 2. Exclusion of Transgender Rights:** Some feel that the movement's strict focus on separating from men overlooks the inclusion of transgender individuals.
- 3. Limiting Choices for Women:** Critics point out that the movement may inadvertently restrict women's choices, especially those who desire children or find fulfillment in heterosexual relationships.

Advocating for Change from Within

Opponents argue that meaningful social change is possible through raising awareness among men and encouraging accountability within relationships, rather than cutting off contact entirely.

Relevance: GS Prelims & Mains Paper II; International Issues

Source: Indian Express

16. Evaluating Biden's foreign policy legacy: Four years on, a world far more unsafe

Introduction



Joe Biden entered the White House with two extraordinary qualifications that no other US president had had in the past 70 years — nearly 50 years of experience in government, and over a decade on the Senate Foreign Relations Committee. Yet, he is leaving behind a foreign policy legacy — perhaps also a first for a US President — of almost zero diplomacy.

Following four turbulent years of the Trump presidency, when Joe Biden won the office of the US president in 2020, a phrase that spread fast was “adults are back in the room.” But today, a veteran diplomat leaves behind a world that is fundamentally more unsafe and unsound over the last four years.

In evaluating the US foreign policy under President Biden, while it is a struggle to find positives, critics are ironically enumerating a whole list of ‘achievements’:

uniting China and Russia like never before; uniting Hamas and Hezbollah; worsening confrontation between the Global South and the West; and so on.

Biden helped bring China and Russia together

Arguably, the relative decline of US power since the early 1990s, and the simultaneous rise of China on one hand and the hardening of the “illiberal” bloc of countries informally led by Russia on the other hand, created an opportunity for China and Russia to band together against the US-led Western geopolitical order. In the words of John Feffer, the director of think tank Foreign Policy in Focus (FPIF), “This involves a debilitating anxiety within the ‘globalist’ elite in Washington about the ability of the United States to remain *primus inter pares* (first among equals) within the liberal international order.”

It is this that led successive US administrations, from the Barack Obama presidency to the Trump era to Biden's four years, to try and contain the Chinese “dragon” through trade and tariff wars, and curb Russia through the NATO eastward expansion.

Trump, when in office, had followed policies consistent with his predecessors. However, his rhetoric has been loudly 'America first', where he puts little value on the USA's perceived role as the global policeman of liberal ideals. As evident in the recent election campaign, Trump's approach to many international conflicts is that the "United States does not have a dog in that fight."

In his trademark bragging style, Trump told a large audience in a live interview on October 31, "It was Biden who united them [Russia and China]. I want to break them up. I have the ability to break them up."

Larry C Johnson, CEO and co-founder of the US business firm Berg Associates and international relations expert, said: "Prior to the start of Russia's 'Special Military Operation' nobody really thought of it... that Russia and China will be collaborating in such intense way...now look at them!"

The bloodshed in Middle East

It was Biden's flawed strategy in Israel that emboldened Benjamin Netanyahu to carry out the bloodshed in Gaza, many believe. If Biden had a plan to rein in the Israeli PM, it failed completely, and Secretary of State Anthony Blinken's frequent visits to Israel definitely left Washington looking complicit. In fact, the joke in Washington's elite political circles is that the solitary achievement of Biden diplomacy is the "frequent flyer miles earned by Blinken".

On a more serious note, experts are concluding that ironically, the "greatest threat to US strategy in the Middle East hasn't come from Iran, but from its closest ally – Israel."

On a different but related note, the result of the American bungling in the Middle East has been a "historic" unity of Sunni and Shia communities. Larry Johnson, quoted above, who is also a former CIA analyst, noted: "Biden has helped remove the separation between Sunni and Shia. Biden made Hamas and Hezbollah come together to oppose Israel."

Trump, meanwhile, has reportedly told Netanyahu — as reported by The Times of Israel — that he "wants the Gaza war over by the time he enters office."

NATO, and China

In July 2023, the 75th NATO leaders' summit was hailed as Biden's "signature achievement" on largely two counts: for the alliances' powerful resurgence and expansion since the Russian invasion of Ukraine (Finland and Sweden becoming two new members); and Biden leading the alliance in responding quickly and comprehensively to the war in Ukraine, without getting into a direct conflict with Russia.

However, a year on, critics point out that the NATO expansion has made the world far more unstable, and possibly crossed a red line for Russia. Some even say that US-Russia relations may never recover.

Trump, on the other hand, has said he will “end the Ukraine war in 24 hours”, though without elaborating on how.

When Biden assumed office, sections in China had called him a “Cold War warrior”. As he demits, he seems to have proven this sobriquet right. In the over four-and-a-half decades since China and the US established diplomatic relations, he remains the first US President to not have been hosted by Beijing.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

17. Usha Vance, Wife of US Vice President-elect JD Vance

Background and Family Heritage



Usha Vance (née Chilukuri) hails from a distinguished Indian-American family with roots in Andhra Pradesh, India. Her parents emigrated to the US in the 1980s.

- Father: Krish Chilukuri, an aerospace engineer from IIT Madras.
- Mother: Lakshmi Chilukuri, a marine biologist and provost at UC San Diego.
- Grandfather: Chilukuri Ramasastry, a founding faculty member at IIT Madras, with a prestigious physics prize named in his honor.

- Great-aunt: Shanthamma Chilukuri, a long-serving physics professor in India.

Growing up in San Diego, Usha was known for being a “leader” and a “bookworm.” Her childhood community was filled with intellectual discussions, where women would gather to discuss literature, while men shared gardening tips.

She went on to study history at Yale University, followed by an MPhil at the University of Cambridge on a Gates Fellowship. Despite her academic circles often being politically left-leaning, Usha has remained largely private about her political views, focusing her support on her husband’s career.

Meeting JD Vance at Yale

Usha met JD Vance while attending Yale Law School between 2010 and 2013. Vance, known for his memoir *Hillbilly Elegy*, credited Usha for helping him adjust to the prestigious academic environment.

Legal Career and Media Presence

Professionally, Usha Vance has an impressive legal career, having worked as a Supreme Court clerk and associate at prominent law firms.

Relevance: GS Prelims; Indian Diaspora

Source: Indian Express

18. Despite end of Canada's SDS programme, how Indian students can still secure visas

Introduction



Canada announced the end of its Student Direct Stream (SDS) programme for students from 14 countries, including India, effective November 8. While some have raised concerns, as SDS provided a fast-track path for securing student visas, counsellors and experts say the alternative system also has some advantages.

What does the closure of the SDS mean for students?

The SDS programme allowed for quicker processing of student visa applications. It was launched in 2018 for admission into post-secondary Designated Learning Institutions (DLI), which are colleges approved by the government for hosting international students.

It had strict requirements, such as paying one year's tuition fee in advance and providing a mandatory Guaranteed Investment Certificate (GIC) worth \$20,635 as proof of funds. Despite the programme's closure, experts believe students overall do not stand to lose significantly in terms of their visa prospects.

Can students still apply for Canadian visas?

Yes. Students can still apply under the regular, non-SDS application category, which is much more flexible at present. For example, students are not required to pay the full one-year tuition fee upfront but for only six months of tuition and show they have sufficient funds to cover their living expenses. This makes the process more affordable for students unable to meet the more costly SDS requirements thus far. While the GIC is still an option, it is not mandatory.

"Previously, many students with good candidate profiles could not afford to pay the full one-year fee, and this led them to choose other destinations like Germany or Europe. But now, studying in Canada has become much more accessible. It's a huge relief for students with financial constraints who wanted to pursue their education in Canada," said Aman Parmar, a visa consultant at a Punjab-based firm.

He added that aspirants should aim to secure a Letter of Acceptance (LOA) from a reputable college in Canada based on their academic profile and include an attestation letter from the province where the institute is located when paying the tuition to bolster their chances.

What about the IELTS/PTE requirement, part of SDS eligibility?

The English language tests IELTS and PTE, requiring a minimum of six bands and 60 marks respectively, were part of the SDS process. However, under the non-SDS application route, students still have options if they do not meet these specific scores. Students with an overall score of 6 bands across modules and 5.5 bands can also apply.

A good score can always strengthen an aspirant's application. Any other proof of English proficiency acceptable in Canada and a strong academic record can further strengthen a student's profile.

Are there any challenges students should keep in mind?

First, while students no longer need to pay a full year's tuition upfront, they will still need to demonstrate that they can financially support their stay in Canada. The good news for aspirants is that the required funds are now much lower – around Rs 5 to 6 lakh is sufficient for many, whereas SDS demanded around four times the amount.

Additionally, students must ensure a top-notch visa application. This means having a strong academic record and a plan for their higher education. Visa officers are looking for students serious about their education and have a realistic plan for achieving professional success in Canada.

Earlier this year, Canada introduced a cap on the number of study visas it will issue annually. However, the cap is quite generous — Canada aims to grant study visas to 3,05,000 international students annually until 2027. If a student applies to a reputable educational institution with a study permit quota and has a strong LOA they are more likely to be accepted, even if the number of applicants is high.

Students often faced refusals under the SDS category if their profiles weren't strong enough and the same principle applies under the non-SDS route. If there is any gap in a student's education, they must be prepared to provide a strong explanation.

"A strong visa profile is always key. Canada has made changes to the student visa system, but it has not closed the doors to student visas," said Tirath Singh, a Punjab-based consultant.

Relevance: GS Prelims; International Relations

Source: Indian Express

19. Musk, Indian-origin Ramaswamy to head body to trim US govt: What is DOGE

Introduction



US President-elect Donald Trump has announced that X owner Elon Musk and Indian-origin entrepreneur Vivek Ramaswamy will head a new body called Department of Government Efficiency (DOGE).

What is DOGE, and what will be its role and functions?

What will DOGE do?

In effect, DOGE will be the USA's version of 'Minimum Government, Maximum

Governance'. The Republican Party has for long advocated a leaner government, with fewer red tape regulations and fewer taxes. However, Trump's initiative of hiring two super-wealthy men to trim government expenses is unprecedented.

According to the statement the President-elect put out, Musk and Ramaswamy will restructure government departments as well as finances. "Together, these two wonderful Americans will pave the way for my Administration to dismantle Government Bureaucracy, slash excess regulations, cut wasteful expenditures, and restructure Federal Agencies – Essential to the "Save America" Movement. "This will send shockwaves through the system, and anyone involved in Government waste, which is a lot of people!" his statement said.

How will Department of Government Efficiency work?

Trump's statement makes it clear that DOGE will not be a government department. "The Department of Government Efficiency will provide advice and guidance from outside of Government, and will partner with the White House and Office of Management & Budget to drive large scale structural reform, and create an entrepreneurial approach to Government never seen before," he said.

This is seen as a way to ensure that Musk and Ramaswamy can continue in their current roles in their business ventures. If they had become federal employees, rules governing their appointment would have kicked in.

The department is supposed to finish its work by July 4, 2026, the 250th Anniversary of The Declaration of Independence.

While Trump has called DOGE "The Manhattan Project of our time" — the programme that developed the USA's first nuclear bomb — many others are less enthused.

Critics have pointed out that appointing two businessmen into such positions of power will raise questions of conflict of interest. Musk, for example, has run afoul of government regulations in several of his projects. Also, neither has any experience of governance, which, apart from corporate-style efficiency, needs to carry out several welfare functions.

Some have said that setting up a separate body to cut expenses — presumably with its own staff and budget — will also end up running up expenses.

Relevance: GS Prelims; International Issues

Source: Indian Express

20. Historic Maritime Breakthrough: A Turning Point in Pakistan-Bangladesh Relations

Introduction



A significant moment in South Asian geopolitics unfolded recently when a cargo ship from Karachi arrived at Chattogram (formerly Chittagong) port, establishing the first-ever direct maritime contact between Pakistan and Bangladesh. This move, hailed by the Pakistan High Commission in Dhaka as a “major step in bilateral trade,” suggests a possible shift in the historically tense relationship between the two countries, especially after the political changes in Bangladesh following Sheikh Hasina’s ouster.

The Lingering Shadow of 1971

The relationship between Bangladesh and Pakistan has long been clouded by the brutal events of 1971:

- **Historical Atrocities:** During the nine-month Liberation War, the Pakistani military, with the support of local collaborators, committed widespread atrocities, leaving around 3 million people dead and thousands more tortured and raped. These memories are deeply ingrained in the Bangladeshi national consciousness.
- **Lack of Apology:** Pakistan has never formally apologized for its actions during the war, which continues to hamper bilateral ties. Political scientist Ali Riaz notes that a public apology is essential for healing the wounds of the past.
- **Conflicting Narratives:** While Bangladesh views 1971 as a war of liberation, Pakistan’s narrative often frames it as an Indian conspiracy to break up the country. This stance, supported by the Pakistani military, makes an official apology unlikely.

Hasina’s Tenure: A Tense Relationship

Sheikh Hasina’s leadership (1996-2001, 2009-2024) was marked by a hardline stance on historical accountability:

- **War Crimes Tribunal:** Hasina set up the International Crimes Tribunal in 2010 to prosecute those involved in 1971 war crimes, leading to multiple convictions and executions of pro-Pakistan collaborators, particularly members of Jamaat-e-Islami.

- **Strained Relations with Pakistan:** Pakistan's criticism of these trials, including the execution of Jamaat leader Abdul Quader Mollah, further strained ties. Hasina viewed Pakistan's reaction as proof that it had not fully accepted Bangladesh's independence.

- **Closer Ties with India:** Hasina strengthened Bangladesh's relationship with India, leveraging their historical support during the Liberation War. Her personal rapport with India's political elite and her crackdown on terrorism solidified the India-Bangladesh partnership.

A New Opening for Pakistan

The ouster of Sheikh Hasina in August 2024 has created an opportunity for Pakistan to reset its relationship with Bangladesh. Three factors are at play:

1. **Changing Political Sentiment:** For younger Bangladeshis who did not experience the 1971 conflict firsthand, the emotional weight of that era is diminishing. Rising economic and social challenges have shifted their focus away from historical grievances.

2. **Anti-India Sentiment:** Hasina's close ties with New Delhi sparked resentment among some Bangladeshis who viewed India as too involved in their national affairs. This frustration was evident when a mob attacked the Indira Gandhi Cultural Centre in Dhaka.

3. **Islamist Influence:** The post-Hasina political landscape includes a stronger presence of the Islamist Jamaat-e-Islami, which opposes the 1971 Liberation War narrative and aligns more closely with Pakistan's views.

The Way Forward: A Diplomatic Thaw

Recognizing the changing dynamics, Pakistan has been quick to extend an olive branch to Bangladesh:

- **Calls for Reconciliation:** Pakistani commentators have urged both countries to move past the bitterness of 1971. Retired diplomat Burhanul Islam emphasized the need to rebuild ties in a changing geopolitical context.

- **Positive Response from Dhaka:** The interim Bangladeshi government, led by Muhammad Yunus, has shown openness to Pakistan's outreach. During a meeting with Pakistani Prime Minister Shehbaz Sharif at the United Nations General Assembly, Yunus stressed the need to turn a "new page" in bilateral cooperation.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

21. Inauguration of first trilateral power transaction – from Nepal to Bangladesh through the Indian Grid

Introduction



Union Minister for Power and Housing & Urban Affairs, Shri Manohar Lal, jointly inaugurated the power flow from Nepal to Bangladesh, alongwith Md. Fouzul Kabir Khan, Adviser, Ministry of Power, Energy and Mineral Resources, Government of Bangladesh and Mr. Dipak Khadka, Minister of Energy, Water Resources and Irrigation, Government of Nepal through a virtual event. This historic occasion marks the first

trilateral power transaction which has been carried out through the Indian grid.

Trilateral power transaction

The Government of India had announced its decision to facilitate the first trilateral power transaction from Nepal to Bangladesh, through Indian grid with an export of upto 40 MW of power during the visit of the former Prime Minister of Nepal, Mr. Pushpa Kamal Dahal 'Prachanda' to India from 31 May to 3 June 2023. During the visit, both sides had expressed their commitment towards greater sub-regional cooperation, including in the energy sector, which would lead to increased inter-linkages between the economies for mutual benefit of all stakeholders.

Subsequently, a tripartite power sales agreement between NTPC Vidyut Vyapar Nigam, Nepal Electricity Authority and Bangladesh Power Development Board was signed on 3 October 2024 in Kathmandu.

The start of this power flow from Nepal to Bangladesh through India is expected to boost sub-regional connectivity in the power sector.

Relevance: GS Prelims & Mains Paper II; Bilateral Relations

Source: PIB

22. Will Riyadh summit impact the Gaza war?

Introduction



Saudi Arabia hosted a summit of leaders from Arab and Islamic countries last week to discuss the Palestine question. The summit demanded an immediate end to Israel's military aggression on Gaza and Lebanon.

What did leaders say?

The leaders condemned the Israeli military's "shocking and horrific crimes", its "crime of genocide", and "ethnic cleansing" in Gaza, and called for an "independent, credible" international committee to investigate these crimes. It urged for measures to end the Israeli occupation and "establish an independent, sovereign Palestinian state on the lines of June 4, 1967, with occupied Al-Quds [Jerusalem] as its capital, based on the two-state solution, and in accordance with the approved references and the Arab Peace Initiative of 2002."

What is the significance of the summit?

In recent years, Arab countries had shown a willingness to improve or even normalise ties with Israel bypassing the Palestine question, in violation of the spirit of the Arab Peace Initiative, which promised recognition to Israel in return for the creation of a Palestine state. In 2020, the UAE, Bahrain, Morocco, and Sudan normalised ties with Israel in an agreement called the Abraham Accords. In the past, Arab-Israel normalisation — Egypt in 1979 and Jordan in 1994 — came with some Israeli compromises. Israel signed the Framework for Peace in the Middle East with Egypt in 1979 (following the Camp David Agreement), agreeing to establish an autonomous Palestinian self-governing authority in the occupied West Bank and Gaza, and the Israel-Jordan agreement (the Wadi Araba Treaty) following the 1993 Oslo Agreement, which laid the foundations of the Palestine National Authority.

But when the Abraham Accords were signed, the Palestinians got nothing. After the October 7, 2023 Hamas attack and Israel's retaliatory war on Gaza (and the West Bank), Arabs condemned the Israeli actions but stopped short of provoking the Jewish state. However, their unease and anger over the war Israel was carrying out were on display. In the Riyadh summit, they expressed their collective anger and sent a message to both Israel and the U.S. that resolving the Palestine question is key to peace in West Asia.

Where do Saudi-Israel ties stand?

In September 2023, Mohammed bin Salman, the Saudi Crown Prince, and Prime Minister, said the kingdom was in an advanced stage of finalising a normalisation agreement with Israel. For both the U.S. and Israel, an agreement with Saudi Arabia was the logical next step of the normalisation process. Arab countries were also increasingly wary of Iran and they seemed ready to bolster ties with Israel and build a joint defensive shield against potential Iranian threats. Then came the October 7 attack, and Israel's war on Gaza. Saudi Arabia and the UAE see the Hamas brand of political Islam as a threat to their monarchical systems. But they cannot ignore the mood in the Arab Street and West Asia, which is predominantly anti-Israel and pro-Palestine. A few months after the war, the Saudis said any future agreement with Israel should be linked to resolving the Palestine issue. On September 18, Crown Prince Mohammed said, "The kingdom will not cease its tireless efforts to establish an independent Palestinian state with East Jerusalem as its capital, and we affirm that the kingdom will not establish diplomatic relations with Israel without one." At the opening of the Riyadh summit, MBS, as Prince Mohammed is popularly known, said Israel was committing "genocide" in Gaza, in his harshest criticism of the war. This points to a steady deterioration in Saudi-Israel ties over the past year.

Will the Arabs join the war?

Very unlikely. The last time an Arab country attacked Israel was in 1973 when Egypt, along with Syria, launched a surprise offensive in Sinai and Golan, Egyptian and Syrian territories, respectively, that were captured by Israel in 1967. Egypt launched the attack to get its territory back, not for the Palestinians. Ever since, peace between Israel and Arab states prevailed, irrespective of Israel's military occupation of the Palestinian territories. That status quo is unlikely to change as no Arab country has the stomach to go to war against Israel. But before the October 7 attack, Arabs were moving closer to formalising their relationship with the Jewish state — that push has now been derailed. Now, even the UAE, which had close ties with Israel, says it "is not ready to support the day after the war in Gaza without the establishment of a Palestinian state". Arab countries have also entered into a detente with Iran, bringing their decades-long rivalry with the Shia state to a tactical halt.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: The Hindu

23. All about MATES, a new scheme for young Indians to work in Australia

Introduction



Australia has come up with a new scheme that allows talented young people from India to work in the country for some time.

What is MATES?

According to the department of home affairs of Australia, MATES gives Indian university graduates and early career professionals a chance to work in

Australia for two years.

On May 23, 2023, Australia and India entered into a Migration and Mobility Partnership Arrangement (MMPA). The MMPA is a bilateral framework that supports and promotes two-way migration and mobility between the two countries, while addressing issues pertaining to illegal and irregular migration. MATES has been established under the MMPA.

This scheme will open for professionals from December this year, said Gaurav Chaudhary, immigration consultant of Ludhiana-based education consultancy EDU Planet.

Who can apply for a visa under MATES?

MATES is open to Indian nationals who are aged 30 or younger at the time of application; have not previously participated in MATES; have proficient English language skills (overall IELTS or equivalent score of at least 6, with a minimum score of 5 for each of the four modules); have graduated within 2 years from an eligible educational institution at the time of application; and hold a qualification (Bachelor's degree or higher) in one of the following: renewable

energy, mining, engineering, Information Communications Technology (ICT), artificial intelligence (AI), financial technology (FinTech) and agricultural technology (AgriTech).

Graduates from the top 100 universities of India as per the National Institutional Ranking Framework (NIRF) ranking 2024 will be eligible for this scheme. From Punjab, the eligible universities are: Panjab University, Chandigarh University, Thaper Institute of Engineering and Technology, and Lovely Professional University.

Is there an Australian employer sponsorship requirement?

No, there is no requirement for sponsorship by an Australian employer.

What are the advantages of this scheme?

MATES participants will be able to live and work in Australia for up to 2 years. Whilst there is no strict requirement for visa holders to work in their nominated field of study, it is designed to support young professionals expand their skills and networks, particularly in the sectors listed above.

MATES will commence as a pilot programme with 3,000 places for primary applicants per programme per year. Participants will be able to apply to bring dependents (spouses and dependent children). Dependents will have work rights in Australia, and will not count towards the annual cap.

What is the duration of stay?

Visa holders will have 12 months to make their first entry into Australia, and may stay in Australia for 24 months from the date of first entry. The visa will allow multiple entries to Australia.

Participants may extend their period of stay by applying for another visa permitting temporary or permanent residence, provided they meet all eligibility requirements for the visa.

How will the visa be granted?

Visa will be granted through ballot. The ballot randomly selects people to apply for visa. Ballot application fee is Australian dollar (AUD) 25, and afterwards the shortlisted candidates will proceed for further formalities, said Gaurav Chaudhary.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

24. Why is Trump Establishing a Department of Government Efficiency?

Introduction



President-elect Donald Trump recently announced the creation of a new Department of Government Efficiency (DOGE). On November 12, he appointed tech billionaire Elon Musk and biotech entrepreneur Vivek Ramaswamy to spearhead this initiative, aimed at reducing bureaucratic red tape, slashing excessive regulations, cutting wasteful spending, and restructuring federal

agencies.

The Mission Ahead for Musk and Ramaswamy

Elon Musk and Vivek Ramaswamy will serve as external advisors, collaborating with the White House and the Office of Management and Budget (OMB) to drive substantial structural reforms. The focus will be on fostering an entrepreneurial approach within the federal government. Both share Trump's vision of reducing government bureaucracy. In an October rally, Musk suggested that federal spending could be cut by as much as \$2 trillion from the current \$6.5 trillion budget. Ramaswamy, during his bid for the Republican nomination, advocated for dismantling certain federal agencies and restructuring intelligence units.

Is Reform Truly Necessary?

The federal government's fiscal situation has raised alarms. According to the Government Accountability Office (GAO) Performance and Accountability Report for 2024, the long-term financial outlook appears unsustainable. In early 2024, GAO reported that public debt had reached 97% of the GDP by the end of the fiscal year 2023, with projections indicating it could exceed 106% by 2028. Without drastic policy interventions, public debt could potentially double the growth rate of the economy over the next three decades, reaching nearly 200% of GDP by 2050. The GAO has repeatedly urged Congress to develop a comprehensive fiscal plan to achieve sustainability, ensuring that debt growth remains in line with or below the GDP rate.

Trump's Approach to Regulatory Budgeting: What's Next?

During his campaign, Trump vowed to eliminate 10 regulations for every new one introduced—far more ambitious than his previous policy of cutting two rules for each new regulation during his first term. To achieve this, Trump will likely pursue multiple strategies, such as reinstating rescinded executive orders, utilizing the Congressional Review Act to reverse late-stage regulations from the current administration, reforming oversight at the OMB, and possibly shifting some regulatory powers to Congress. Additionally, he aims to scale back entire agencies to streamline federal functions and reduce the government's regulatory footprint.

Historical Precedents: Past Efficiency Initiatives

Efforts to reduce federal inefficiencies are not new. In 1982, President Ronald Reagan established the Grace Commission, a group of business leaders tasked with identifying and eliminating waste in government spending. After two years, they released a report with over

2,500 recommendations. However, most of these proposals required Congressional approval and were ultimately not implemented.

In 2010, President Barack Obama formed the Simpson-Bowles Commission to address the federal deficit. The commission's report recommended deep cuts in domestic and military spending, an increased federal gasoline tax, and adjustments to Social Security, among other measures. However, these recommendations failed to gain enough support in Congress due to political disagreements, underscoring the need for both strong political will and bipartisan collaboration to enact such sweeping reforms.

The Potential Impact of the DOGE Initiative

While the Department of Government Efficiency (DOGE) is ambitious, its direct influence may be limited to providing recommendations on reducing federal regulatory authority. The implementation of these recommendations will depend on the approval of Congress and cooperation from agencies like the OMB.

The commission's work is set to conclude by July 4, 2026, and while it won't directly lead to the immediate shutdown of federal agencies or widespread layoffs, it could serve as a precursor to broader structural changes, especially if aligned with Trump's Schedule F initiative. This initiative seeks to reclassify certain federal employees, making it easier for the President to dismiss them, which could significantly reshape the civil service landscape. Proponents argue that this would reduce bureaucratic resistance, while critics warn that it could erode the nonpartisan nature of the civil service.

For DOGE to avoid the fate of previous commissions that failed to produce lasting change, it might benefit from adopting strategies similar to New Jersey's Red Tape Review Commission. This state-level commission successfully identified regulatory burdens that negatively impacted citizens and small businesses, leading to meaningful reforms before it was eventually disbanded due to political pressures. Its success demonstrates that regulatory commissions can achieve tangible results when there is broad support and collaboration.

Relevance: GS Prelims & Mains Paper II; International Issues

25. New Zealand Lawmakers Perform Haka in Protest Against Controversial Bill: What You Need to Know

Introduction



Recently, New Zealand's Parliament witnessed a powerful protest when legislators from the Indigenous Māori community staged a haka—a traditional ceremonial dance—in response to a divisive bill. This demonstration led to a temporary suspension of the parliamentary session.

The protest was led by Hana-Rawhiti Maipi-Clarke, a young 22-year-old MP from Te Pāti Māori (the Māori Party). The protest was triggered when she was questioned about her party's stance on the proposed Treaty Principles Bill, which aims to reinterpret an agreement signed nearly two centuries ago between the British and the Māori. In a bold gesture, Maipi-Clarke tore up a copy of the bill in front of its author, further intensifying the protest, which was supported by members of the Green and Labour parties as well as spectators in the public gallery.

The Cultural Significance of the Haka

The haka holds a deep cultural and historical significance for the Māori people. Traditionally, it was performed by warriors on the battlefield or during significant occasions to demonstrate strength, unity, and cultural pride. According to New Zealand Tourism, the haka embodies a sense of physical prowess while showcasing the spirit and resilience of the Māori culture. It involves synchronized chanting, powerful hand gestures, dramatic facial expressions, and rhythmic foot stomping.

One of the most well-known haka performances in recent years occurred in 2019 when students from diverse schools—including non-Māori institutions—performed it to honor victims of the Christchurch shootings.

Varieties of Haka in Māori Culture:

- **Ka Mate:** Composed in the 19th century by tribal leader Te Rauparaha, this haka is a celebration of life and survival with the famous refrain: "Ka mate, ka mate! Ka ora, ka ora!" ("I die, I die! I live, I live!").
- **Peruperu:** A war haka performed before battles to intimidate opponents.
- **Ngeri:** A shorter haka without set choreography, used to uplift spirits and fortify courage.
- **Pōwhiri:** Performed during formal welcoming ceremonies.
- **Manawa Wera:** A haka expressing grief, often performed at funerals or memorial services.

The All Blacks, New Zealand's national rugby team, have famously performed the haka before matches for nearly 120 years, gaining a psychological edge over their opponents and showcasing cultural unity.

Why Was the Haka Performed in Parliament?

Despite the protest, Parliament moved forward and passed the first reading of the Treaty Principles Bill, introduced by the libertarian Act Party, a junior partner in New Zealand's current center-right coalition government. The bill seeks to amend the Treaty of Waitangi, which was signed in 1840 between representatives of the British Crown and over 500 Māori chiefs. This foundational document guaranteed Māori rights over their lands and resources in exchange for ceding governance to the British.

Over the years, successive governments, courts, and tribunals have developed principles based on the treaty to improve relations between the Māori and the government. These principles—commonly recognized as participation, partnership, protection, and redress—have been used to interpret the treaty's original English and Māori texts, which had discrepancies.

What is the Treaty Principles Bill?

The bill, introduced by Act Party leader David Seymour, aims to define the treaty's principles in a more precise legal framework, arguing that the current lack of specificity has led to overly broad interpretations. For instance, the 1975 Treaty of Waitangi Act established a tribunal to document the injustices faced by Indigenous communities during colonization. However, Seymour contends that the current interpretations have contributed to division based on ethnicity and believes that redefining the treaty through Parliament rather than the courts will create fairer applications.

The bill does not seek to rewrite the original treaty but instead proposes a referendum to ensure that its principles are applied equally to all New Zealanders. However, critics argue that this would undermine the treaty's original intent, jeopardize Māori rights, and promote anti-Māori sentiment. Even some members of the ruling coalition, including Prime Minister Christopher Luxon of the New Zealand National Party, have expressed reservations about the bill, describing it as "simplistic."

Growing Opposition and Potential Challenges Ahead

The bill's path forward is likely to be contentious, with significant opposition not only from Māori rights groups but also within the government itself. Activists are organizing a 1,000-kilometer protest march (hīkoi) to the capital, Wellington, in opposition to the bill. The upcoming parliamentary readings will determine whether the bill can gain sufficient support or if it will face a backlash that could derail its progress.

Relevance: GS Prelims; International Issues

26. Strengthening India-Nigeria Ties: A New Chapter in Strategic Partnership

Introduction

Prime Minister Narendra Modi's recent visit to Nigeria marks a pivotal moment in the six-decade-long relationship between India and the West African nation. This trip, the first by an Indian Prime Minister in 17 years, underscores the growing importance of Nigeria in India's foreign policy, especially as both nations seek to strengthen their partnership in defense, trade, and global governance.

Historical Foundations of India-Nigeria Relations

India and Nigeria share a long history of diplomatic and cultural ties, beginning even before Nigeria's independence in 1960. India established its Diplomatic House in Lagos in 1958, and bilateral exchanges at the highest levels have been consistent ever since.

During the formative years of Nigeria's independence, Indian teachers, doctors, and military trainers played a significant role, including the establishment of the National Defence Academy in Kaduna and the Naval War College of Port Harcourt. Over the years, the 60,000-strong Indian expatriate community in Nigeria has become the largest in West Africa, further cementing the bonds between the two nations.

In 2007, the relationship was elevated to a "Strategic Partnership" during former Indian Prime Minister Manmohan Singh's visit to Abuja, highlighting mutual goals in development and international cooperation.

Nigeria's Role in Africa and Global Affairs

Known as the "Giant of Africa," Nigeria boasts the continent's largest population and one of its fastest-growing economies. It is the fourth-largest economy in Africa and a major player in regional and global forums, including the African Union (AU), the United Nations, and OPEC.

Nigeria's influence extends beyond economics, as it is a founding member of the AU and a proponent of regional integration. Its inclusion as a permanent member of the G20, facilitated during India's G20 presidency in 2023, further highlights its global importance.

Deepening Bilateral Ties Amid Geopolitical Shifts

Prime Minister Modi's visit came at a time when India is intensifying its engagement with Africa, particularly in light of China's expanding influence across the continent. India's developmental assistance to Nigeria, including concessional loans worth \$100 million and capacity-building programs, complements the investments of over 200 Indian companies that have contributed \$27 billion to Nigeria's manufacturing sector.

During his visit, PM Modi emphasized India and Nigeria's shared commitment to tackling global challenges such as terrorism, piracy, separatism, and drug trafficking. Both nations also reiterated their mutual aspirations for permanent representation on the United Nations Security Council.

A Symbolic Recognition



In a historic moment, Prime Minister Modi was conferred with Nigeria's second-highest national honor, the Grand Commander of the Order of Niger, by Nigerian President Bola Ahmed Tinubu. The award, the first conferred on a foreign leader since 1969, recognized Modi's visionary leadership and significant contributions to strengthening India-Nigeria relations.

Moving Forward: Economic and Strategic Collaborations

Nigeria's strategic importance in Africa aligns with India's broader goals in the region. As the two nations explore avenues for collaboration, sectors such as energy, infrastructure, and defense remain key focus areas. India's pledge to provide relief supplies for flood-affected Nigerians and continued investments signal its intent to remain a steadfast partner.

Prime Minister Modi aptly concluded his visit by echoing an African proverb: "A friend is someone you share the path with." For India and Nigeria, this friendship promises a path paved with mutual growth and shared aspirations.

Relevance: GS Prelims; International Relations

Source: PIB, The Hindu and Indian Express

27. The \$3.6 billion Chinese-funded Chancay port project in Peru, US concerns around it

Introduction

Chinese President Xi Jinping inaugurated Peru's Chancay Port recently, describing it as the starting point for a "new land-sea corridor between China and Latin America".

Funded under China's Belt and Road Initiative (BRI), the massive \$3.6 billion project has also raised concerns in US policymaking circles over Chinese influence in a region traditionally seen as its backyard.

Apart from its geopolitical implications, the deep-sea port has been billed as a game-changer for South America. A 2023 article in The Diplomat said, "One of the most outstanding features of the Chancay New Multipurpose Port Terminal is its capacity to receive vessels of up to 18,000 TEUs (Twenty Foot Equivalent Units), the largest shipping vessels in the world. To date, no vessel of this size has not arrived in Latin America. This capacity will position Chancay as a strategic port on a global scale."

What is the Chancay Port project?

Located about 78 km north of the Peruvian capital of Lima, Chancay is a small fishing town with a population of around 60,000. It is a natural deep-water port, however, previous

feasibility studies on building up infrastructure pointed out heavy construction costs. China began construction in 2019 and the China Ocean Shipping (Group) Company or COSCO now owns 60 per cent of the port, with a local company owning the rest.



An article in China's state media outlet Global Times noted its significance: "Currently, most of Peru's cargo to Asia and Oceania needs to transit through Central America or North America, and the throughput cannot meet the needs of foreign trade upgrades." In order to reach South America, bigger cargo ships first go to ports in the United States or Mexico and their goods are offloaded onto smaller ships.

Chinese media also reported that the port will reduce the transportation time of goods exported from Latin America to the Asian market from 35 days to 25 days, greatly reducing logistics costs and generating jobs. "The port is expected to generate \$4.5 billion in annual economic benefit for Peru, equivalent to 1.8 percent of the country's GDP," a Global Times editorial said.

Key trade items here include copper, blueberries and soybeans. Crucially, Bolivia, Chile and Argentina also form the "lithium triangle" together. The element is in great demand over the lithium-ion batteries used to power the growing numbers of Electric Vehicles worldwide. A

report from the International Energy Agency noted that more than one in three new car registrations in China was electric in 2023, compared to over one in five in Europe and one in 10 in the United States.

What are the US concerns over Chancay?

Media reports have quoted several US officials flagging the project recently. In June, The Wall Street Journal quoted Army General Laura Richardson, former head of the U.S. Southern Command, saying, "This will further make it easier for the Chinese to extract all of these resources from the region, so that should be concerning."

Brazil, the largest economy in the continent, has announced plans to enhance its road connectivity to Chancay. The South China Morning Post also quoted Erik Bethel, a former US representative at the World Bank during Donald Trump's previous presidency, speaking at a conference this May. He said, "Wait until the port of Chancay in Peru gets connected to Brazil. That's going to be a wake-up call for all of us."

For long, the US has remained the major player in the region, delivering aid and loans but also interfering with the continent's governments. In line with its "containment" policy during the Cold War, it sought to prevent the expansion of Communist ideology. The continent's resources, such as oil and precious metals, were also an incentive for extending its influence.

While the US remains South America's biggest trade partner, China has increasingly made inroads in the continent as its own economy has grown. "China is Peru's largest trade partner, largest export market, and largest source of imported goods, while Peru is China's fourth largest trade partner in Latin America," Global Times noted.

Some experts also believe China has taken advantage of the US shifting its foreign policy focus on other regions of the world, such as the Middle East and Europe. But in South America, this is not seen as a necessarily bad thing.

According to WSJ, Peru's Foreign Minister Javier González-Olaechea said that if the US was concerned about China's growing presence in Peru, then it should step up its investments. "The United States is present almost everywhere in the world with a lot of initiatives, but not so much in Latin America," González-Olaechea said in an interview. "It's like a very important friend who spends little time with us."

With the incoming Trump presidency, given his recent mentions of the region largely for curbing illegal immigration to the US, there is again concern about US focus shifting away, paving the way for Chinese presence.

Larger BRI concerns

Critics have questioned the ambitious economic benefits projected from BRI works undertaken across the global south. For instance, China-funded several train connectivity projects in Southeast Asia have seen revisions made to their original high costs and have been delayed.

Then there is the case of the Hambantota port in Sri Lanka. Its 99-year lease was given to a Chinese company after Sri Lanka failed to pay back Chinese loans for the project. It led further credence to accusations of "debt-trap diplomacy" by China. With the Chinese economy also slowing down in recent years, there are further questions about the viability of BRI projects.

Relevance: GS Prelims; International Relations

Source: The Hindu

28. What is Russia's nuclear doctrine, newly updated by Vladimir Putin?

Introduction



President Vladimir Putin has approved changes to Russia's nuclear weapons policy, and Moscow has urged the West to study them closely.

What happened?

Putin signed a decree updating Russia's nuclear doctrine, last published in 2020. The document, like the one it replaces, says Moscow sees nuclear weapons as a means of deterring its enemies and sets out the scenarios under which it would consider using them.

Why did Russia announce it now?

Putin had spoken publicly about the key points of the new doctrine recently. Recent decree came on the same day that Ukraine fired US-supplied ATACMS missiles into Russia for the first time in the war.

But some security analysts played down the timing, saying it was understandable that the state bureaucracy had taken weeks to draft and publish the document following Putin's instructions.

How does the new doctrine apply to the Ukraine war?

It states that any aggression against Russia by a non-nuclear state that is carried out with the participation or support of a nuclear state will be considered a joint attack.

It lists additional scenarios under which Moscow would consider a nuclear response, including if it had reliable information about the launch of a massive cross-border air attack on Russia using planes, missiles and drones. Ukraine has staged frequent air attacks, mostly with drones but now also with US missiles, to degrade Russia's ability to strike Ukrainian troops, cities and energy infrastructure.

What are the other key changes?

Much of the language is unchanged from 2020, but there are a number of alterations and additions that in effect lower the threshold for Russian nuclear use.

Russia is officially placing close ally Belarus under its nuclear umbrella. Russia now says it may use nuclear weapons in the event of a conventional attack against itself or Belarus that "creates a critical threat to their sovereignty or territorial integrity". Previously, Russia had said it might meet a conventional attack with nuclear weapons "when the very existence of the state is placed under threat".

Russia says its nuclear deterrent is aimed not only at other nuclear states but also at other countries that allow their land, water or airspace to be used to prepare or conduct aggression against it.

What other threats could prompt Russia to go nuclear?

The document lists several new risks and scenarios which could prompt Russia to consider a nuclear response. These include creation of new military coalitions, or expansion of existing ones, that move enemy military infrastructure closer to Russia's borders, and planning or carrying out large-scale military exercises near Russia's borders, etc.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

29. US embassy in Kyiv shut over attack fears: Unpacking Biden's move to let Ukraine use ATACMS inside Russia

United States Embassy in Kyiv shut down

The US embassy in Kyiv was closed recently over concerns of a "potential significant air attack", the Department of State Consular Affairs said in a statement.

"Out of an abundance of caution, the embassy will be closed, and embassy employees are being instructed to shelter in place... The US Embassy recommends US citizens be prepared to immediately shelter in the event an air alert is announced," the statement on the website of Kyiv embassy said.

A day earlier, Ukraine had struck Russia with American ATACMS missiles, which Joe Biden finally allowed Kyiv to do in the final days of his tenure.

What exactly did Biden allow Ukraine to do?

Weeks before he leaves the White House, Biden has provided authorisation to Kyiv to use the Army Tactical Missile System, also known as ATACMS, inside Russia. The Biden administration had secretly sent these missiles to Ukraine earlier this year, under the stipulation that Ukraine would not use it inside Russia.

In September, Russian President Vladimir Putin had warned that Moscow would view the use of these long-range missiles on Russian territory as the “direct participation” of NATO countries in the war.



The recent US authorisation appears limited to allowing Ukraine to defend its forces inside Russia's Kursk region.

Experts believe that the US decision is linked to North Korean soldiers entering the war in support of Russia.

Why Kursk?

Kursk region important in the war between Russia and Ukraine, where Kyiv's surprise offensive over the Russian territory had caught Moscow off-guard. Russia is trying to regain

Kursk, this time with the help of North Korean soldiers.

Kursk is crucial because it creates a buffer zone between Ukraine and Russia, and both Kyiv and Moscow want military control over it.

Ukraine on Tuesday struck Russia's Bryansk region, which is close to Kursk and is helping Russia's war efforts there.

What threats do long-range missiles pose?

According to the Arms Control Association, a US-based organisation that promotes awareness on arms control policies, “ballistic missiles are powered by rockets initially but then they follow an unpowered, free-falling trajectory toward their targets. They are classified by the maximum distance that they can travel, which is a function of how powerful the missile's engines (rockets) are and the weight of the missile's payload. To add more distance to a missile's range, rockets are stacked on top of each other in a configuration referred to as staging.”

Presently, 31 countries in the world possess ballistic missiles. However, only nine of these countries, including India, Pakistan, the US, China and North Korea, are known or suspected of possessing nuclear weapons with ranges that can exceed 1,000 km.

The missiles that the US has authorised Ukraine to use is a surface-to-surface ballistic missile capable of hitting targets at up to 300km (186 miles). This range means that Ukraine may now be able to hit targets inside Russia, including Russian-annexed Crimea.

Also, the missiles are fuelled by solid rocket propellant and follow a ballistic path into the atmosphere before coming back down at a high speed and high angle, making them difficult to intercept, the BBC report says.

What will the ATACMS mean for the war?

Since the start of the war between Russia and Ukraine, NATO states have largely withheld the supply of heavy artillery and advanced weapons to Kyiv, fearing escalation.

Now, experts believe that the US policy shift on ATACMS can open doors to other allies making similar concessions to Ukraine.

For instance, with Germany scheduled to hold snap elections in February, Chancellor Olaf Scholz has been under pressure from political opponents to drop his resistance to sending German-made cruise missiles to Ukraine.

The UK and France have supplied the Storm Shadow/SCALP missiles to Ukraine, but Kyiv is so far only allowed to use them inside Ukraine's internationally recognised borders.

The Storm Shadow, also known as SCALP EG, is an "air-launched long range, conventionally armed, deep strike weapon, designed to meet the demanding requirements of pre-planned attacks against high value fixed or stationary targets" and can "be operated in extreme conditions, the weapon offers operators a highly flexible, deep-strike capability based around a sophisticated mission planning system," according to MBDA, a European multinational corporation that manufactures missiles.

On November 18, The Guardian reported that the UK may allow the use of Storm Shadow inside Russia.

Experts believe that no single weapon can win the war for Ukraine, but can buy more time for Kyiv.

Relevance: GS Prelims; International Issues

Source: Indian Express

30. ICC issues arrest warrant against Israel's Netanyahu, Gallant: What this means, what happens next

Introduction

The International Criminal Court (ICC) has issued arrest warrants for Israeli Prime Minister Benjamin Netanyahu and his former defence minister Yoav Gallant for "crimes against humanity and war crimes".

A warrant has also been issued against Hamas leader Ibrahim Al-Masri, better known as Mohammed Deif.

Gallant was sacked by Netanyahu earlier in November, amid reports that the defence minister advocated an end to fighting and a deal to bring back Israeli hostages captured by Hamas.

Deif, Israel claims, has been killed in an airstrike, but Hamas has neither confirmed nor denied this. Here's more on Deif.

On what charges has ICC issued the warrant against Netanyahu, and what happens next? We explain.



What is the ICC?

The ICC, headquartered in The Hague, Netherlands, was established under a 1998 treaty called the "Rome Statute". It "investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community: genocide, war crimes, crimes against humanity and the crime of aggression."

At present, 124 countries are party to the Rome Statute, including Britain, Japan, Afghanistan, and Germany. India is not a member, nor are China and the US.

The ICC was established to prosecute the most heinous offences only when a country's own legal machinery was unable or unwilling to act. Unlike the International Court of Justice (ICJ), which deals with countries and inter-state disputes, the ICC prosecutes individuals.

Additionally, the offences should be committed either in a country that ratified the agreement or by a national of a ratifying country. The ICC can also practise its jurisdiction over cases referred by the UN Security Council to it.

Israel is not party to the Rome Statute, but Palestine is.

How did ICC get involved in this case?

Back in 2018, Palestine had referred the situation in the country as a whole to the ICC.

Then in November 2023, South Africa, Bangladesh, Bolivia, Comoros, and Djibouti sent a further referral into the Palestine situation. In January 2024, "the Republic of Chile and the United Mexican State additionally submitted a referral to the Prosecutor with respect to the situation in The State of Palestine," the ICC said.

What have Netanyahu and Gallant been accused of?

The two are accused of "war crime of starvation as a method of warfare; and the crimes against humanity of murder, persecution, and other inhumane acts."

"The Chamber considered that there are reasonable grounds to believe that both individuals intentionally and knowingly deprived the civilian population in Gaza of objects indispensable to their survival, including food, water, and medicine and medical supplies, as well as fuel and electricity, from at least 8 October 2023 to 20 May 2024," the ICC said on its website.

Further listing why it finds the two guilty of "murder, persecution, and other inhumane acts, the ICC said, "...by intentionally limiting or preventing medical supplies and medicine from getting into Gaza, in particular anaesthetics and anaesthesia machines, the two individuals are also responsible for inflicting great suffering by means of inhumane acts on persons in need of treatment."

The ICC has also held Netanyahu and Gallant responsible for the actions committed by Israel forces under their command, including alleged instances of torture, wanton violence and killing, rape, and destruction of property.

What happens once ICC issues an arrest warrant?

The ICC's decisions are binding, but it depends on its members to ensure cooperation. Thus, if Netanyahu or Gallant were to travel to any of the 124 member states, its government would be obligated to arrest them and extradite them to The Hague.

The ICC had earlier issued an arrest warrant for Russian President Vladimir Putin. It had then been pointed out that this would deepen his isolation from the West, as he would not be able to travel to a number of countries without risking arrest. In the case of Netanyahu more than

Putin, several of his country's allies, like Germany, France, and the United Kingdom, are members of the ICC. These countries have all so far backed Israel and it is very unlikely they will arrest Netanyahu if he does travel to their shores.

Thus, the ICC warrant, more than anything, will serve as a moral victory for Palestine and deepen international pressure on Israel, as Netanyahu cannot travel to many friendly countries without embarrassing their governments.

Relevance: GS Prelims; International Issues

Source: The Hindu

31. Second India-CARICOM Summit

Introduction

Prime Minister Shri Narendra Modi and the Prime Minister of Grenada, H.E. Mr. Dickon Mitchell, the current CARICOM Chair, chaired the 2nd India-CARICOM Summit in Georgetown on 20 November 2024. The first India-CARICOM Summit was held in 2019 in New York.

Key Highlights

To further build on India's close development partnership and strong people to people ties with the region, Prime Minister offered assistance to CARICOM countries in seven key areas.

These areas fit well with the CARICOM acronym and amplify the close bonds of friendship between India and the group. They are:

1. C: Capacity Building
2. A: Agriculture and Food Security
3. R: Renewable Energy and Climate Change
4. I: Innovation, Technology and Trade
5. C: Cricket and Culture
6. O: Ocean Economy and Maritime Security
7. M: Medicine and Healthcare

Capacity Building

On capacity building, Prime Minister announced one thousand more ITEC slots for CARICOM countries over the next five years. The Indian Technical and Economic Cooperation Programme, ITEC for short, is the leading capacity building platform of the Ministry Of External Affairs, Government of India. Instituted in 1964, ITEC is one of the oldest institutionalized arrangements for international capacity building having trained more than 200,000 officials from 160+ countries in both the civilian and in the defence sector.

Agriculture and Food Security

In the area of food security, a critical challenge for these countries, he shared India's experience with embracing technology in the agriculture domain - drones, digital farming, farm mechanization and soil testing. Given that Sargassum seaweed poses a major challenge for

tourism in the Caribbean, Prime Minister noted that India would be happy to help convert the seaweed into fertilizer.



Renewable Energy and Climate Change

Calling for enhancing collaboration between India and the CARICOM in the fields of renewable energy and climate change, Prime Minister urged members to join the global initiatives led by India such as the International Solar Alliance, Coalition for Disaster Resilient Infrastructure, Mission LiFE and Global Biofuel Alliance.

Innovation, Technology and Trade

Speaking about transformative changes brought about by innovation, technology and trade in India, Prime Minister offered India's Digital Public Infrastructure, cloud-based Digi locker and UPI models to countries in CARICOM to augment public service delivery.

Cricket and Culture

CARICOM and India share close cultural and cricketing ties. Prime Minister announced training in India for 11 young women cricketers from each of the CARICOM countries. He also proposed organizing "Days of Indian Culture" in member countries next year to strengthen people-to-people ties.

Ocean Economy and Maritime Security

To boost ocean economy and maritime security, Prime Minister noted that India was ready to work with CARICOM members on maritime domain mapping and hydrography in the Caribbean Sea.

Medicine and Healthcare

Prime Minister highlighted India's success with quality and affordable healthcare. He offered India's model of making available generic medicine through the Jan Aushadhi Kendras [generic medicine shops]. He also announced sending Yoga experts for promoting the e health and wellbeing of the people of CARICOM.

Response of CARICOM Leaders

The CARICOM leaders welcomed Prime Minister's Seven Point Plan for strengthening partnership between India and CARICOM. They appreciated India's leadership of the Global South and its strong support for climate justice for the Small Island Developing States. They called for reform of global institutions and in this regard looked forward to working closely with India.

CARICOM

The Caribbean Community (CARICOM or CC) is an intergovernmental organisation that is a political and economic union of 15 member states (14 nation-states and one dependency) and five associated members throughout the Americas, The Caribbean and Atlantic Ocean. It has the primary objective to promote economic integration and cooperation among its members, ensure that the benefits of integration are equitably shared, and coordinate foreign policy. The organisation was established in 1973, by its four founding members signing the Treaty of Chaguaramas.

The secretariat headquarters is in Georgetown, Guyana. CARICOM has been granted the official United Nations General Assembly observer status.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: PiB

32. China-India attempt to repair ties

Overview

"If you and I don't have trust, then the countries cannot have trust," a senior Chinese government official said to a correspondent in Beijing last week.

The official was referring to the trust deficit between India and China over the last four-and-half years of the border standoff in Ladakh.

This correspondent was part of an Indian media delegation that visited China at the invitation of the Chinese government. This was the first media delegation to visit the country since 2019 — after the Covid-19 pandemic and the border standoff.

Open for business

The message from several meetings with Chinese officials, members of the business community, and scholars and analysts in state-run think tanks and media organisations was clear: China wanted to move on in the bilateral relationship, and was open for business.

Senior Chinese officials mentioned the “chemistry” between President Xi Jinping and Prime Minister Narendra Modi, which they said was evident during the meeting of the two leaders on the sidelines of the BRICS summit in Kazan, Russia on October 23.

The officials said the two sides were discussing ways to bring ties back to “normal” – as it was before the face-off started in April-May 2020 along the Line of Actual Control (LAC).

The officials outlined their “wish-list”: resumption of “direct flights” between the countries, easing of visa curbs on Chinese nationals including diplomats and scholars, lifting of the ban on Chinese mobile apps, letting Chinese journalists report from India, allowing more Indian movies in Chinese theatres, etc.

Thaw after Galwan

All these restrictions and curbs were put after the bloody clashes in Galwan in June 2020, in which 20 Indian soldiers including a Colonel-rank officer and at least four Chinese soldiers were killed.

The Galwan clash was the deadliest along the border since 1967, and cast a dark shadow on political ties. After many rounds of discussions between the two countries, India announced a breakthrough on October 21 this year — and soldiers from both sides started patrols along the LAC.

The agreement on “patrolling arrangements” was an important beginning to the three-step process of disengagement, de-escalation and de-induction of troops. An important meeting took place this week to take the process forward.

On September 18, External Affairs Minister S Jaishankar met Chinese Foreign Minister Wang Yi on the sidelines of the G20 leaders’ summit in Rio de Janeiro in Brazil. The two Ministers discussed the “next steps in India-China relations”, according to the official statement issued by India.



Views from capitals

The Indian and Chinese statements after the Jaishankar-Wang meeting opens a window to how New Delhi and Beijing are viewing the situation, and the way forward.

The Indian statement said that the "Ministers recognized that the disengagement in our border areas had contributed to the maintenance of peace and tranquility. The discussions focused on the next steps in India-China relations. It was agreed that a meeting of the Special Representatives and of the Foreign Secretary-Vice Minister mechanism will take place soon."

The Chinese statement was more enthusiastic: "Wang Yi said President Xi Jinping and Prime Minister Narendra Modi held a successful meeting in Kazan recently, and China-India relations have been restarted and re-launched, which is in line with the fundamental interests of the two peoples, the expectations of countries in the global South, and the right direction of history."

The Indian statement was in sync with the way New Delhi has framed the state of bilateral ties — that the situation at the border is a precondition to the next steps.

China, however, has taken it forward by describing the Modi-Xi meeting as a "restart and re-launch".

In step — and not

On the next steps forward, there are both convergences and divergences.

The Indian statement said "among steps discussed were the resumption of the Kailash Mansarovar Yatra pilgrimage, data sharing on trans-border rivers, direct flights between India and China and media exchanges".

The Chinese statement said: "We should strive to make practical progress as soon as possible in the resumption of direct flights, mutual assignment of journalists and visa facilitation. Next year will mark the 75th anniversary of the establishment of diplomatic relations between China and India, and the two sides should plan commemorative activities and encourage exchanges and visits in all fields and at all levels to enhance understanding and mutual trust."

✚ Both sides have talked about the resumption of direct flights and media exchanges.

However, Pre-pandemic, Chinese airlines such as Air China and China Southern operated direct flights to India. Now, there are no direct flights. The flights are via Hong Kong.

There is one Indian journalist in Beijing currently; there are no Chinese reporters in Delhi. Journalists of both countries had to leave in recent years after their visas were not renewed. There is a strong feeling that journalists from each country must be allowed to report freely from the other.

✚ India did not mention the 75th anniversary events, and China did not talk about the Kailash Mansarovar Yatra and river data-sharing.

Despite the divergences, it is important that India — which had taken a very strong line about not normalising ties until the border situation improves — has agreed to talk about the next steps. While officials and analysts in Beijing have been advocating the resumption of ties, India has been guarded and cautious, mindful of hardened public opinion over the last four-and-half years.

It is not clear yet when the next meeting of the Special Representatives and of the Foreign Secretary-Vice Minister mechanism will take place. The last SR-level talks took place in December 2019.

Relevance: GS Prelims & Mains Paper II; Bilateral Relations

Source: Indian Express

33. What is Global Alliance Against Hunger and Poverty, launched at Brazil G20?

Introduction

In 2015, all 193 UN Member States adopted the '2030 Agenda for Sustainable Development' which aimed to, among other things, end poverty and hunger, and achieve food security and improved nutrition by 2030.

The G20 Leaders' Summit held in Rio de Janeiro, Brazil was headlined by the official launch of the Global Alliance Against Hunger and Poverty (henceforth "the Alliance").

One of the main initiatives championed by Brazil during its G20 presidency in 2024, the initiative will serve as a platform for connecting countries in need of assistance with public

policies targeted towards eradicating hunger and poverty, with partners willing to offer expertise or financial support.



An urgent need

In 2015, all 193 UN Member States adopted the '2030 Agenda for Sustainable Development' which aimed to, among other things, end poverty and hunger, and achieve food security and improved nutrition by 2030.

But the Covid-19 pandemic led to significant reversals in the progress made towards these ends, as extreme poverty rose and nutrition standards fell, especially in the Global South. The uneven economic recovery since, along with a rise in global conflicts, and the harmful impacts of climate change, have further weakened the fight against hunger and poverty.

As things stand, progress is too slow to meet the 2030 targets. "Current projections indicate that 622 million people will live below the extreme poverty line of \$ 2.15 per day by 2030 — double the target level," the Alliance said in a statement during its launch. It added: "If current trends persist, 582 million people will live in hunger by 2030, approximately the same number as in 2015".

It is in this context that Brazil chose to launch the Alliance during its G20 presidency. Speaking during the launch, Brazil President Lula da Silva said: "I attended the first G20 Leaders' Meeting in Washington in the wake of the 2008 financial crisis. Sixteen years later, I am saddened to see that the world is even worse off. We have the highest number of armed conflicts since World War II, and the highest number of forced displacements ever recorded. Extreme weather events are having devastating effects on every corner of the planet. Social, racial, and gender inequalities are deepening in the wake of a pandemic that has claimed more than 15 million lives. The ultimate symbol of our collective tragedy is hunger and poverty."

How Alliance will function

According to Lula, 81 countries (including India), 26 international organisations, 9 financial institutions, and 31 philanthropic foundations and non-governmental organisations have already joined the Alliance.

The Alliance will provide a platform for countries to support each others' public policies aimed at eradicating hunger and poverty. According to a factsheet released by the Alliance, "any member country can access proven best practices from other members and identify potential partners willing to assist in the development of its own national model." Assistance may be in the form of technical expertise or financial support.

The Alliance has identified an evidence-based policy basket, which comprises more than 50 policy instruments that member countries can avail support for. Of particular importance are the six "Sprints 2030", high-impact areas which will see target-oriented initiatives catering to the most vulnerable. These include: school meals; cash transfers; smallholder and family farming support programs; socio-economic inclusion programs; integrated maternal and early childhood interventions; and water access solutions.

Unlike many initiatives, the Alliance does not boast an exclusive fund. Rather it envisions playing a matchmaking role, connecting countries in need with motivated donors and technical support. The \$2-3 million required annually for its operations will come from member countries and institutions such as the Food and Agriculture Organization (FAO), UNICEF, and the World Bank.

The Alliance may be headquartered in Brasilia, or some other Global South country. It will also likely have an office at the FAO headquarters in Rome.

Relevance: GS Prelims & Mains Paper II; International Organisations

Source: Indian Express

34. International Cooperative Alliance

Introduction

The International Cooperative Alliance (ICA) is the global organization that unites, represents, and serves cooperatives around the world.

Founded in 1895, London, England during the 1st Cooperative Congress it is one of the oldest and largest non-governmental organizations, representing 1 billion cooperative members globally.

With approximately 3 million cooperatives across the planet, the ICA serves as the apex body for the cooperative movement, providing a global platform for collaboration, knowledge exchange, and coordinated action. It is the leading voice for cooperatives, advocating for their interests and supporting the sharing of expertise across the sector. The International Cooperative Alliance (ICA) has over 306 member organizations across 105 countries.

Its members include both international and national cooperative organizations representing a wide range of economic sectors, such as agriculture, banking, consumer goods, fisheries, health, housing, insurance, and industry & services.

The International Co-operative Alliance (ICA) first expanded into the Asia-Pacific region with the establishment of the Regional Office & Education Centre for South-East Asia in 1960. This was the result of discussions that had taken place at various ICA Congresses starting in 1948, aimed at bringing the national cooperative movements of developing countries closer to the global cooperative network. The discussions also explored how cooperation could be a tool for social and economic development in these countries.

In 1954, the ICA's 19th Congress held in Paris passed a resolution highlighting the responsibility of established cooperative movements, particularly in developed countries, to support the cooperative pioneers in underdeveloped countries. The resolution emphasized the role of cooperation in fostering economic growth in these regions and recommended drawing up an actionable program to facilitate the spread of cooperation and provide the necessary financial assistance.

2024 ICA Global Conference

The 2024 ICA Global Conference will mark a historic milestone as it takes place in India for the first time in the event's 130-year history! The conference will be held in New Delhi, bringing together cooperators from around the globe to explore the role of cooperatives in shaping a collective, peaceful, and prosperous future for all.

The conference theme, "Cooperatives Build Prosperity for All," highlights the people-centered, purpose-driven, and progress-oriented nature of cooperatives.



Role of India in the Development of ICA-Asia Pacific (ICA-AP)

India has been a central figure in the development and success of the International Co-operative Alliance Asia-Pacific (ICA-AP). From the inception of ICA's regional office in New Delhi in 1960, to its continued influence in the global cooperative movement, India has not

only been a key member but also a driving force in shaping cooperative models that have had a profound impact across the Asia-Pacific region.

Establishment of the ICA Regional Office in India

In 1957, at the behest of ICA, Dr. G. Keler, a Swedish cooperative expert, conducted an exploratory tour across several Asian countries, including India. His mission was to assess the region's needs for cooperative development and evaluate the potential for ICA's intervention. Dr. Keler visited countries such as Pakistan, India, Sri Lanka (then Ceylon), Singapore, Malaysia, Indonesia, Burma, Thailand, Hong Kong, Japan, and South Korea, where he engaged in discussions with key stakeholders, including cooperative organizations, governments, and United Nations agencies.

Based on his findings and the consultations that followed at the Kuala Lumpur Conference in 1958, ICA decided to establish its Regional Office and Education Centre in New Delhi, India, marking a crucial step in fostering cooperative development across both South and East Asia.

India's role as the host nation for the ICA regional office was not only significant due to its geographical location but also because of its commitment to cooperative principles. This decision paved the way for India to become a cornerstone in the evolution of ICA-AP and its activities in the region.

Official Inauguration of the ICA Regional Office & Education Centre

On November 14, 1960, the ICA Regional Office and Education Centre (ICA ROEC) was officially inaugurated in New Delhi by Jawaharlal Nehru, India's first Prime Minister. Nehru was a strong advocate for the cooperative movement and recognized its potential to support India's rural development. His involvement was symbolic of the deep connection between India's socio-economic goals and the cooperative model.

In his inaugural address, Nehru emphasized the importance of cooperation for achieving national self-reliance and social equality. His vision for India aligned closely with ICA's goals, reinforcing the role of cooperatives in promoting socio-economic development and equity. Nehru's leadership during India's freedom struggle and his focus on fostering unity in the post-colonial era underscored his support for cooperatives as vital instruments of social change.

Evolution of ICA-Asia Pacific and India's Role

Initially, the ICA ROEC operated as two separate institutions – the Regional Office and the Education Centre – with their own leadership structures. However, in 1963, the two entities were merged to form a single institution known as the ICA Regional Office and Education Centre. This restructuring allowed for better coordination and streamlined operations, setting the foundation for future expansion.

In 1970, the head of the institution was designated as the Regional Director, and the office continued to evolve. Over the years, ICA-AP's scope broadened to cover all of Asia and the

Pacific, and by 1990, the organization was renamed the International Cooperative Alliance Asia-Pacific (ICA-AP) to reflect its expanded mandate.

The ICA-AP office in New Delhi has remained the central hub for ICA's operations in the region, overseeing capacity-building initiatives, offering technical assistance, and advocating for cooperative-friendly policies. India has consistently played an influential role in guiding the growth and strategic direction of ICA-AP, helping cooperatives thrive across diverse sectors.



Governance Structure of ICA-AP

ICA-AP operates within the larger framework of ICA's global governance structure, which includes various bodies designed to ensure effective collaboration and decision-making among member organizations in the region:

Regional Assembly: This is the highest policy body, where all ICA member organizations participate. It is responsible for guiding the regional office and discussing regional and global issues, making recommendations to the ICA General Assembly.

Regional Board: The Regional Board supports the implementation of policies and decisions made by the Regional Assembly, ensuring that ICA-AP's goals are effectively pursued.

Sectoral and Thematic Committees: These committees focus on specific areas such as agriculture, finance, housing, and sustainable development. Their work is central to addressing regional needs and promoting cooperative solutions.

India's participation in these bodies has ensured that its interests are well-represented and that it continues to lead efforts in shaping the cooperative movement in the region.

India's Contribution to ICA-AP and the Cooperative Movement

India's cooperative movement is deeply ingrained in its socio-economic fabric, reflecting the values of unity, mutual aid, and collective prosperity. The ancient Indian principle of Vasudhaiva Kutumbakam – "the world is one family" – has been a guiding force behind the cooperative movement in India, emphasizing solidarity and mutual support.

The cooperative sector in India spans various domains such as agriculture, banking, housing, and rural development. Cooperatives have been instrumental in empowering marginalized communities, providing access to resources, and contributing to rural economic development. India's National Cooperative Movement is one of the largest and most diverse in the world, involving millions of people and numerous sectors.

The Indian government has played an active role in supporting the cooperative model. In 2021, the Ministry of Cooperation was established to strengthen the cooperative sector further. The Ministry's vision is to promote a cooperative-driven economic model that reaches every village, reinforcing social and economic bonds across regions.

Types of Cooperatives in India

Cooperatives in India are diverse, serving a wide range of purposes and sectors. Some of the key types of cooperatives include:

Consumers' Cooperative Societies: These provide consumer goods at reasonable prices, eliminating middlemen. Examples include Kendriya Bhandar and Apna Bazar.

Producers' Cooperative Societies: These support small producers by providing raw materials and equipment. Examples include APPCO and Haryana Handloom.

Cooperative Marketing Societies: These assist small producers in marketing their goods collectively. AMUL, the Gujarat Cooperative Milk Marketing Federation, is a prominent example.

Cooperative Credit Societies: These offer financial assistance to members by accepting deposits and providing loans at reasonable interest rates.

Cooperative Farming Societies: These enable small farmers to benefit from collective farming practices, such as lift-irrigation cooperatives.

Housing Cooperative Societies: These provide affordable housing options by purchasing and developing land for members.

Conclusion

India's role in the ICA-Asia Pacific region has been pivotal, not only through the establishment of the ICA Regional Office in New Delhi in 1960 but also as a leader in promoting cooperatives across Asia and the Pacific. The Indian cooperative movement, supported by both the government and civil society, continues to serve as a model for other countries in the region. Through its active participation in ICA-AP, India has helped shape the direction of cooperative development, both regionally and globally, reinforcing the importance of cooperatives as instruments of social and economic development.

As India prepares to host the ICA Global Conference in 2024, its ongoing leadership in the cooperative movement highlights the critical role that cooperatives play in fostering inclusive growth and building a more equitable society.

Relevance: GS Prelims & Mains Paper II; International Organisations

Source: PIB

35. Trump plans tariffs on Canada, Mexico, China: What does it mean?

Introduction



President-elect Donald Trump has pledged to impose tariffs on the United States' three largest trading partners — Canada, Mexico, and China — as soon as he takes office on January 20. In 2023, the three countries together bought more than \$1 trillion of US exports and provided nearly \$1.5

trillion of goods and services to the US, according to a report by The New York Times.

Experts believe that the new tariffs can have serious implications not only for the US but also for global supply chains and companies that do business with some of the world's largest economies.

How high can Trump's tariffs get?

Trump announced that he would sign an executive order imposing a 25% tariff on all Mexican and Canadian imports and an "additional" 10% tariff on Chinese goods on the first day of his administration.

However, it remains unclear if these proposed tariffs would be in addition to tariffs that Trump talked about during his campaign trail — Trump had said he would impose tariffs of 60% or

more on imports of Chinese goods and suggested he would enforce a tariff of 1,000% or higher on vehicles imported from Mexico.

Why does Trump want to impose these tariffs?

Trump said, the tariffs will stay in place for Mexican and Canadian goods until the "invasion" of drugs and undocumented migrants comes to an end.

Trump also accused China of shipping illegal drugs to the US. "Representatives of China told me that they would institute their maximum penalty, that of death, for any drug dealers caught doing this but, unfortunately, they never followed through", he said.

According to some Trump allies, the president-elect hopes to use the threat of tariffs as a bargaining chip in future negotiations with foreign countries.

What can be the implication?

In the short term, the tariffs would make it expensive for companies in Canada, Mexico, and China to export goods to the US. Experts suggest that these companies would pass on the extra costs to customers, which would result in higher prices.

Mexico's auto industry could be severely affected as it is home to manufacturing plants for Honda, Nissan, Toyota, Mazda and Kia, as well as several Chinese auto part suppliers. Tech companies such as Foxconn, Nvidia, and Lenovo which have server facilities and factories in Mexico would also be hit.

Canadian media reported that even a 10% tariff could result in \$21 billion (Canadian \$30 billion) a year in economic costs.

In the long term, American industries which ship parts, materials and finished goods across US borders can also be impacted.

The costs could be particularly high for the industries that depend on the tightly integrated North American market, which has been knit together by a free-trade agreement for over three decades... It could also invite retaliation from other governments, which could put their own levies on American exports.

This could, in turn, lead to a rise in prices in the US and other parts of the world.

Relevance: GS Prelims & Mains Paper II; International Relations

Source: Indian Express

1. India's Nutraceutical Industry: Growth, Potential, and Future Prospects

Understanding Nutraceuticals: Definition and Scope

The term "nutraceutical" is a blend of the words "nutrition" and "pharmaceutical." Nutraceuticals are products derived from food sources that offer additional health benefits beyond basic nutritional value. These can range from dietary supplements, fortified foods, and functional foods to beverages and herbal extracts. Unlike conventional foods, nutraceuticals are specifically designed to prevent or manage various diseases and enhance overall well-being.

The nutraceutical category includes:

- **Dietary Supplements:** Capsules, tablets, or powders containing concentrated nutrients, like vitamins, minerals, amino acids, and herbal extracts.
- **Functional Foods:** Foods enriched with additional nutrients or components, like omega-3 in dairy products, to promote health.
- **Probiotics & Prebiotics:** Ingredients that enhance gut health by promoting the growth of beneficial bacteria.
- **Fortified Beverages:** Drinks enriched with vitamins, minerals, or herbal extracts to provide added health benefits.

The Growth of India's Nutraceutical Industry

India's nutraceutical industry has witnessed significant growth in recent years, largely driven by increased consumer awareness of health and wellness. In 2023, the industry was valued at around \$8 billion, and it's projected to reach over \$18 billion by 2027, with a compound annual growth rate (CAGR) of approximately 21%.

This surge is fueled by multiple factors:

1. **Rising Health Consciousness:** The COVID-19 pandemic heightened awareness of preventive healthcare. Consumers are now more inclined towards natural and organic supplements.
2. **Growing Middle-Class Population:** With increased disposable income, a large segment of India's population is willing to invest in health and wellness products.
3. **Chronic Lifestyle Diseases:** The prevalence of conditions like diabetes, obesity, and cardiovascular diseases has pushed consumers towards nutraceuticals for disease management.

4. Government Support & Regulatory Framework: The Indian government has taken steps to regulate and promote the nutraceutical industry. The Food Safety and Standards Authority of India (FSSAI) plays a key role in standardizing these products, ensuring quality and safety.

Key Players in the Indian Nutraceutical Market

Several companies are leading the growth of India's nutraceutical industry, including:

- **Amway India:** A significant player in dietary supplements.
- **Himalaya Wellness:** Known for herbal formulations.
- **Patanjali Ayurved:** Focuses on Ayurvedic nutraceuticals.
- **Dabur:** Offers a range of health supplements like Chyawanprash and Ayurvedic capsules.
- **Herbalife Nutrition:** Prominent in protein supplements and weight management.

These companies are expanding their product ranges, leveraging e-commerce, and investing in research and development to innovate and stay competitive.

Challenges Facing the Nutraceutical Industry

Despite its potential, India's nutraceutical industry faces several challenges:

1. Regulatory Hurdles: The lack of a clear regulatory framework can lead to inconsistencies in product quality. Though FSSAI has guidelines, the market remains under-regulated compared to pharmaceuticals.

2. High R&D Costs: Developing innovative nutraceutical products requires substantial investment in research and clinical trials, which can be costly for smaller companies.

3. Consumer Misinformation: There's often a lack of clarity about the health benefits and proper usage of nutraceuticals, leading to consumer skepticism.

4. Supply Chain Issues: Ensuring a consistent supply of high-quality raw materials, especially for herbal extracts, can be challenging.

Future Prospects and Trends

The future of India's nutraceutical industry appears promising, driven by several key trends:

1. Personalized Nutrition: With advancements in genomics and data analytics, personalized nutraceuticals tailored to individual health needs are gaining popularity.

2. Ayurvedic and Herbal Supplements: Leveraging India's rich heritage in Ayurveda, companies are developing products that combine traditional wisdom with modern science.

3. Probiotics and Gut Health: As more research highlights the link between gut health and overall well-being, the demand for probiotic products is set to increase.

4. Plant-Based Nutrition: The growing trend towards veganism and plant-based diets is fueling demand for plant-based proteins and supplements.

Conclusion

India's nutraceutical industry is on the brink of a major transformation, driven by a growing focus on preventive healthcare, increasing consumer awareness, and government support. As the industry evolves, it has the potential to not only improve the health of millions but also contribute significantly to the country's economic growth.

For sustainable growth, however, addressing regulatory challenges, investing in research, and enhancing consumer education will be crucial. The nutraceutical industry, when leveraged properly, could play a vital role in positioning India as a global leader in health and wellness.

Relevance: GS Prelims & Mains Paper III; Economics

Source: PIB

2. Supreme Court Orders Liquidation of Jet Airways as a 'Last Resort'

Background: Debt-Ridden Airline Faces Liquidation



In a significant decision, the Supreme Court of India has directed the liquidation of the grounded airline, Jet Airways, as a "last viable resort." This directive aims to protect the interests of the airline's creditors, employees, and other stakeholders after a failed resolution plan.

Importance of Speedy Resolution

The ruling came from a three-judge Bench led by Chief Justice D.Y. Chandrachud. The court emphasized the need for a speedy resolution or, if that is not possible, a time-bound liquidation process. Justice J.B. Pardiwala, who authored the 169-page judgment, stressed that quick action is necessary to prevent further depreciation of Jet Airways' assets.

Invoking Constitutional Powers for Liquidation

Justice Pardiwala used the Supreme Court's plenary powers under Article 142 of the Constitution to order liquidation, aligning with the guidelines of the Insolvency and Bankruptcy Code (IBC) of 2016. The decision was made to ensure the airline's remaining assets do not get "frittered away."

Unique Circumstances Justify Liquidation

The court noted the "peculiar and alarming circumstances" surrounding the case, particularly the fact that nearly five years had passed since the resolution plan was approved by the National Company Law Appellate Tribunal (NCLAT) without significant progress. Given the prolonged delay, the Supreme Court concluded that liquidation was the only viable solution.

Directions to NCLAT for Appointing Liquidator

The Supreme Court has instructed the NCLAT, Mumbai to appoint a liquidator and complete all necessary formalities for the liquidation process. The court clarified that liquidation, in this

instance, would not contradict the principles of the IBC but would instead uphold its goals by ensuring timely resolution.

Background of the Case: Failed Resolution Plan

The judgment was based on an appeal filed by Jet Airways' creditors, led by the State Bank of India, challenging an earlier NCLAT decision from March. The appellate tribunal had previously upheld the transfer of ownership to the Successful Resolution Applicant (SRA), a consortium led by Murari Lal Jalan and Florian Fritsch.

This liquidation order marks a turning point for Jet Airways, which has been grounded since 2019 due to severe financial distress. The move is seen as a final attempt to recover dues and protect the interests of creditors and employees.

Relevance: GS Prelims; Economics

Source: Indian Express

3. India Secures Top 10 Spot in Patents, Trademarks, and Industrial Designs: WIPO 2024 Report

Introduction



The World Intellectual Property Organization (WIPO) has released its World Intellectual Property Indicators (WIPI) 2024 report, highlighting significant trends in intellectual property (IP) filings across the globe. India has made notable strides, securing a place in the top 10 countries for patents, trademarks, and industrial designs, showcasing its growing influence in the global IP landscape.

Surge in Patent Filings

India recorded the fastest growth in patent filings among the top 20 countries, with a 15.7% increase in 2023. This marks the fifth consecutive year of double-digit growth. The country ranks

sixth globally, with 64,480 patent applications. Notably, more than half (55.2%) of these were filed by residents—a milestone for India. The patent office also saw a remarkable 149.4% rise in granted patents compared to the previous year, reflecting the country's rapidly evolving IP ecosystem.

Growth in Industrial Design Applications

India witnessed a significant 36.4% increase in industrial design applications, driven by the growing focus on product design, manufacturing, and creative industries. The leading sectors contributing to this growth were Textiles and Accessories, Tools and Machines, and Health and Cosmetics, which together accounted for nearly half of all design filings.

Expansion in Trademark Filings

India ranked fourth globally in trademark filings, with a 6.1% increase in 2023. Nearly 90% of these filings came from residents, with the Health (21.9%), Agriculture (15.3%), and Clothing (12.8%) sectors leading the way. The trademark office in India now holds the second-largest number of active registrations globally, with over 3.2 million trademarks, demonstrating India's strong commitment to brand protection.

Long-Term Trends in IP Growth

Between 2018 and 2023, India's patent and industrial design applications more than doubled, while trademark filings rose by 60%. This surge highlights the country's emphasis on innovation and intellectual property. The patent-to-GDP ratio also saw significant growth, increasing from 144 to 381 over the past decade, indicating that IP activity is scaling alongside India's economic expansion.

Global IP Trends and India's Role

Globally, 2023 saw a record 3.55 million patent applications, up 2.7% from the previous year. This growth was largely driven by resident filings in key Asian economies like China, the United States, Japan, South Korea, and India. The shift towards local innovation underscores efforts to strengthen domestic IP landscapes.

Government Initiatives Fueling Innovation

The findings from WIPO's 2024 report highlight India's progress in innovation and intellectual property, underpinned by various government initiatives aimed at making the country a global leader in innovation. The steady increase in resident filings reflects the success of these efforts in fostering a robust IP ecosystem.

Relevance: GS Prelims; Economics

Source: PIB

4. India's market correction, China's sub-par stimulus salvo

Introduction

The unfolding "correction" in India's stock indices — the Nifty50 has shed a tenth of its end-September peak — has been linked to the build-up to the Chinese government stimulus to boost its flagging economy.

An index is said to be in a "correction" phase when it falls more than 10% from its last peak level. A more-than-20% fall signals a "bear market" phase.

After Beijing announced its first stimulus package in late September, foreign investors offloaded Indian shares to pick up Chinese equities that were trading at much lower price-earnings multiples (making Chinese stocks more attractive from a valuation perspective).



The slide in the bourses has persisted — even though domestic money has continued to pour into India's stocks. Last week, the Chinese government announced a second booster shot for its economy.

Some other global factors too, are responsible for the current selloff in the Indian markets — these include the anticipated protectionist turn in the United States under Donald Trump, the impact of high tariff barriers on the policy stance of the Federal Reserve, and the expected rate hike by the Bank of Japan in its December meeting, which has triggered an unwinding of yen carry-trade positions across markets.

However, the impact of the two Chinese stimulus packages on investors and markets has been underwhelming so far. So why this reaction by India's indices?

Chinese stimulus packages

On September 24, China's central bank, the People's Bank of China, unveiled measures to boost the economy, which included cutting the amount of cash banks must hold in reserve, smaller down payments for home purchases, and tax incentives for new home buyers. The FPI selloff in the Indian markets began soon afterward.

On November 8, the Chinese government approved a massive 10-trillion-yuan (\$1.4 trillion) plan to revive its domestic economy and enable provincial governments to refinance piled-up debt.

These measures appeared even more relevant after Trump's election last week — and have triggered anticipation of an even bigger stimulus package.

Should the President-elect follow through on his campaign promise of imposing a 60% tariff on Chinese goods, more than 2 percentage points could be shaved off China's growth over the next year, analysts believe.

A \$1.4-tn disappointment

The two economic stimulus measures announced in the space of six weeks, however, did little by way of offering direct support to catalyse consumer spending. A property downturn, surging government debt, and rising unemployment and falling consumption, have slowed down China's growth since the Covid-19 pandemic.

The plan announced on Friday is merely a form of debt relief for local governments. A lot of the growth in China in recent years has been driven by real estate sales, and the collapse of

the property market a couple of years ago cut off that source of funds for local governments. Since these governments have traditionally invested heavily in infrastructure, they are struggling with the interest on the accumulated debt. Local authorities have now been allowed to create new bonds and consolidate their debts to bring down the servicing cost.

However, there has been no new measure to directly boost domestic demand so far. This has been a challenge for China's policymakers as consumers have become increasingly spending-averse. While the Chinese have traditionally had a very high savings rate, the returns on those savings, mostly tied up in property, have plummeted. Following crises such as the bankruptcies of real estate giants like Evergrande, consumers are now reluctant to spend. Boosting consumer sentiment would need more of a direct, spending-focused stimulus than the two packages announced so far.

Chinese stocks over India's

So why are FPIs dumping stocks in countries such as India and lining up for China? There could be three broad reasons.

MORE BOOSTERS LIKELY: China's Finance Minister Lan Foan said on November 8 that more stimulus was on the way, amid speculation that Beijing may not want to exhaust all its firepower before Trump enters the Oval Office in January. Nomura anticipates the eventual scale of China's fiscal stimulus package to reach 2-3% of GDP annually over the next several years.

According to a report by the Financial Times, Trump has asked trade hawk and protectionist Robert Lighthizer to return as US Trade Representative, the position from which he led the first Trump administration's trade war against China. The consolation for Beijing is that Elon Musk, Trump's choice to co-lead the new Department of Government Efficiency, is likely to be something of a middleman for US-China business relations, given his significant exposure to the Chinese market through the operations of his company, Tesla, there.

POOR INDIA INC. EARNINGS: FPIs would also be looking at India's high stock valuations and the disappointing recent earnings season.

From higher prices of commodities to rising expenses on employees, operating margins of Indian companies have come under strain at a time of muted revenue growth. Revenues of a group of 424 companies (excluding banks, financials and oil marketing companies) that announced results for Q2FY25 grew at a modest 6% year-on-year. At the same time, total expenditure rose by 7%, leading to an 80-basis point fall in operating margins y-o-y.

Also, as interest costs increased by more than 10%, net profits were up just 4% y-o-y for these companies.

TRUMPONOMICS: Trump 2.0 could mean a challenge for India to balance its growth stability amid trade and tariff wars, supply-chain disruptions, and heightened forex volatility.

Trump's proposed tax-relief, tariff-hike, and immigration-control measures could stoke inflation in the US and disrupt the Fed's rate-cut agenda. This would impact the trajectory of India's monetary policy if the Reserve Bank of India decides to resolve the uncertainties before undertaking any significant action. Analysts have said a December rate-cut is pretty much ruled out — and the 14-month-high retail inflation in October could mean any such action could be pushed further into the next year.

Relevance: GS Prelims & Mains Paper III; Economics

Source: Indian Express

1. Key Takeaways from COP-16 on Biodiversity Conservation

Overview of COP-16



The 16th Convention on Biological Diversity (CBD), held in Cali, Colombia, extended past its planned conclusion on November 1, as negotiators from 190 countries worked to finalize a deal. This conference aimed to strengthen commitments to biodiversity protection established in prior meetings, particularly the 2022

COP-15 in Montreal, Canada.

Background on the Convention

At COP-15, the Kunming-Montreal Global Biodiversity Framework (KMGBF) was introduced, setting 23 specific targets for biodiversity conservation, with the notable “30-by-30” goal of protecting 30% of land and marine areas by 2030. The framework also included targets for invasive species reduction, pollution control, and incorporating biodiversity into national policies. COP-16 sought to further define funding mechanisms to achieve these ambitious goals, with an estimated requirement of \$200 billion annually. However, only a fraction of this funding has been pledged.

Decisions and Agreements at COP-16

While the final text is still pending, significant steps have been agreed upon, including:

1. **Subsidiary Body for Indigenous Involvement:** A new body was approved to involve indigenous groups in biodiversity discussions, recognizing their critical role in conservation.
2. **Digital Sequence Information (DSI) Debate:** This agreement remains contentious. DSI relates to benefit-sharing from genetic data in commercial products, but COP-16 did not finalize who would contribute financially to this mechanism.
3. **Implementation Support:** Formal texts were adopted on biodiversity and climate integration, invasive species control, and mainstreaming biodiversity in national and international policies.

India's Role and Financial Commitments

India's delegation, led by the Minister of State for Environment, highlighted its commitment to biodiversity, presenting an updated National Biodiversity Strategy and Action Plan (NBSAP).

The updated plan includes:

- **Increased Spending:** India plans to allocate approximately ₹81,664 crore from 2025-2030, up from ₹32,207 crore spent between 2018 and 2022.

- **International Financial Assistance:** Emphasizing the need for international funding, India requested financial support under KMGBF's Target 19, which calls for mobilizing \$200 billion annually, including \$30 billion from international sources.

- **Conservation Initiatives:** India noted recent strides, including the establishment of the International Big Cat Alliance for global big cat conservation and an increase in Ramsar sites from 26 to 85 since 2014, with a goal of reaching 100 sites soon.

Is Additional Funding Available?

While COP-16 acknowledged the need for substantial financial resources, securing these funds remains a challenge. Although there is broad support for increasing the biodiversity budget, no definitive corpus for conservation has been agreed upon, particularly for DSI benefit-sharing. The need for a clear funding pathway will likely continue to be a focus in future COP discussions.

Relevance: GS Prelims; Environment

Source: The Hindu

2. How Cyber Scams Use Social Engineering and Malicious APKs to Defraud Users

Overview of the Scam

In October, a traveler, Bhargavi Mani, reported losing nearly ₹1 lakh while trying to book lounge access at Bengaluru airport. The scam involved social engineering and a malicious APK (Android Package file) that allowed scammers to mirror her screen and enable call forwarding, leading to unauthorized transactions.

**Android
Malicious Apps
Targeting
Indian Users**



Details of the Attack

Ms. Mani received a link via WhatsApp from an international number, leading her to a fake website, "Loungepass.in." She was prompted to download an app that appeared legitimate but was actually a malicious APK. By clicking the link and granting permissions, scammers

were able to mirror her screen and eventually access her credit card information. Following this, they enabled call forwarding on her device, which allowed them to receive OTPs and make further transactions. Attempts to reach Ms. Mani during this period were redirected to the scammer's number.

Role of Big Tech Platforms in the Scam

The fake website Ms. Mani used appeared high in search results, highlighting potential gaps in verification on search engines. Though Apple's App Store generally prevents unverified app installations, scammers used social engineering to manipulate certain iOS settings to bypass these safeguards.

Mechanics of the Malicious APK

The malicious APK gained control over Ms. Mani's device by exploiting features like screen sharing, allowing scammers to view and control her screen. Once installed, they enabled call forwarding by dialing specific codes on her network. This technique is commonly used in sophisticated scams to intercept OTPs required for bank transactions.

The People Behind the Scam

The fake website used in the scam was hosted by Hostinger and registered in Gujarat, India, though specific details about the individuals behind it were obscured. Law enforcement can request additional information for further investigation.

Cybercrime Statistics in India

In 2023, cyber scams cost Indian citizens ₹66.66 crore across 4,850 reported cases. Reports indicate digital financial frauds amounting to ₹1.25 lakh crore over the past three years, with 5.3 million breached accounts reported in 2023. As these crimes grow more complex, users are urged to avoid clicking unverified links, download apps only from official sources, and regularly review their financial records.

Relevance: GS Prelims; Science & Technology

Source: The Hindu

3. Kerala's New Coastal Zone Management Plan (CZMP)

Overview of the Coastal Zone Management Plan (CZMP)

The Union Ministry of Environment, Forest and Climate Change recently approved Kerala's Coastal Zone Management Plans (CZMPs) for ten coastal districts, aligning them with the Coastal Regulation Zone (CRZ) Notification of 2019. This updated CZMP allows these coastal districts in Kerala to undertake development activities with relaxed CRZ rules, permitting construction on the seaward side while aiming to protect the coastal environment and local communities.

Approval and Implementation Process

The Kerala Coastal Zone Management Authority must upload the signed CZMPs for public access within one month. Any project applications seeking CRZ clearance will now be assessed under the 2019 CRZ Notification, which was introduced to balance conservation with sustainable development. This policy aims to protect India's unique coastal ecosystems while considering the livelihoods of coastal communities.

Implications for Kerala's Coastal Population

With a 590-km coastline, Kerala has a high coastal population density. CRZ regulations affect urban and rural communities in ten districts, covering five corporations, 36 municipalities, and 245 village panchayats. Previously, high demographic pressure led to CRZ rule violations, including illegal reclamation of wetlands and construction. The earlier CRZ framework (CRZ 2011) focused heavily on coastal ecosystem conservation to protect local communities' livelihoods.

Changes in No Development Zones (NDZ)

Under the new CZMP:

1. The No Development Zone (NDZ) distance from tidal water bodies is reduced from 100 meters to 50 meters from the High Tide Line for at least 122 local bodies in Kerala.
2. In CRZ-III A zones, covering densely populated rural areas, the NDZ is now set at 50 meters instead of the previous 200 meters, enabling more flexibility in construction.
3. Sixty-six village panchayats are newly classified as CRZ-2, allowing commercial and residential buildings along established building lines.
4. Overall, Kerala's NDZ will shrink to 108.4 sq. km from the previous 239.4 sq. km.

Impact on Mangrove Forests

Mangroves, crucial to coastal ecosystems as breeding grounds for marine life, will see reduced protection under the new regulations:

1. The legal buffer zone for government-owned mangrove tracts over 1,000 sq. meters is reduced to 50 meters, reducing protected mangrove zones to 2,500 hectares from the previous 4,300 hectares.
2. Private landowners with mangrove patches no longer face mandatory buffer zone requirements, raising concerns that this could lead to further depletion of Kerala's mangrove cover, which is already diminishing.

In conclusion, Kerala's updated CZMP will enable development along its coastline but could pose risks to delicate ecosystems, particularly mangroves, which are crucial for coastal resilience.

Relevance: GS Prelims; Environment

Source: The Hindu

4. Carbon markets, NCQG, Paris Agreement: As COP29 begins, climate jargon you need to know

Introduction

As the COP29 summit begins in Baku, Azerbaijan, on Monday (November 11), terms such as New Collective Quantified Goal (NCQG), the Paris Agreement, Kyoto Protocol, loss and damage, and Nationally Determined Contributions (NDCs) are making headlines.

Here is a guide to key terms in the climate change conversation.

COP

COP is an international climate meeting organised annually by the United Nations (UN). COP is short for Conference of the Parties. 'Parties' is a reference to (now) 198 countries that have

joined the international treaty called the UN Framework Convention on Climate Change (UNFCCC). 'Parties' to the treaty have pledged to take voluntary actions to prevent "dangerous anthropogenic [human-caused] interference with the climate system."



Kyoto Protocol

The Kyoto Protocol was an international treaty that placed obligations on the set of rich and industrialised countries to cut their greenhouse gas emissions by assigned amounts. It was adopted in Kyoto, Japan, in 1997, and came into effect in 2005. The treaty formally expired in 2020 and was replaced by the Paris Agreement as the main international treaty for coordinating global action against climate change.

Paris Agreement

Adopted in 2015 at COP21 in Paris, the agreement is aimed to limit rising global average temperature. It is considered a landmark deal as it legally binds (now) 195 nations, for the first time ever, to combat climate change and adapt to its effects.

1.5 degree limit

Under the Paris Agreement, the world governments have agreed to keep average global temperature “well below” 2 degree Celsius this century compared to pre-industrial levels. They have also pledged to pursue efforts to limit the rise to 1.5 degree Celsius — an important

threshold, crossing which would unleash far more severe climate change impacts, including more frequent and severe droughts, heatwaves and rainfall.

Glasgow Pact

Reached at the COP26 summit in Scotland's Glasgow, the pact called for phase down of coal and phase out of fossil fuel. This was the first time that a UN climate agreement explicitly mentioned coal. The pact also marked the resolution of the deadlock over carbon markets.

Carbon markets

Such markets are essentially trading systems in which carbon credits are sold and bought. They allow countries, or industries, to earn carbon credits for the greenhouse gas emission reductions they make in excess of their targets. These carbon credits can be traded to the highest bidder in exchange for money.

The buyers of carbon credits can show the emission reductions as their own and use them to meet their reduction targets.

One tradable carbon credit is equal to one tonne of carbon dioxide or the equivalent amount of a different greenhouse gas reduced, sequestered or avoided. Once a credit is used to reduce, sequester, or avoid emissions, it becomes an offset and can no longer be tradable.

Greenhouse gases

The gases that trap heat in the atmosphere are known as greenhouse gases (GHGs). They allow sunlight to pass through the atmosphere, but obstruct the heat the sunlight brings from leaving. The main source of GHGs is the burning of fossil fuels such as coal, diesel, gasoline or petrol, kerosene, and natural gas. Carbon dioxide, methane, and nitrous oxide are among the most prominent GHGs.

Net-zero

Also referred to as carbon-neutrality, net-zero does not mean that a country would reduce its emissions to zero. Rather, it is a state in which a country's emissions entering the environment are equal to the greenhouse gases being removed from the atmosphere. The removal can be done by creating more carbon sinks such as forests or by implementing futuristic technologies such as carbon dioxide removal (CDR).

In 2018, the Intergovernmental Panel on Climate Change (IPCC) marked 2050 as the deadline by which the world must reach net zero if it wants to limit global warming to 1.5 degree Celsius.

Carbon capture and storage (CCS)

CCS is basically a process that captures carbon dioxide and traps it beneath the earth. It is usually used at fossil fuel plants and factories, where it prevents the gas from escaping into the atmosphere. Notably, CCS is different from carbon dioxide removal (CDR), which involves sucking out carbon from the atmosphere.

Carbon capture, utilisation and storage (CCUS)

CCUS goes a step further than CCS and uses the captured carbon in the production of goods such as alcohols, biofuels, plastics or concrete.

Geo-engineering

It is the deliberate large-scale intervention in the Earth's natural systems to tackle climate change. There are numerous proposed geo-engineering techniques, including CDR. Their effectiveness and potential side effects, however, remain widely debated.

IPCC

The IPCC is the United Nations body for assessing the science related to climate change. It was set up in 1988 by the World Meteorological Organisation (WMO) and the UN Environment Programme (UNEP). IPCC's main activity is to prepare assessment reports, special reports, and methodology reports assessing the state of knowledge of climate change.

Nationally Determined Contributions (NDCs)

The Paris Agreement requires each country to prepare an outline for their efforts to reduce national emissions and adapt to the impacts of climate change. These commitments are known as NDCs. They are submitted every five years, and successive NDCs are supposed to be more ambitious than previous ones.

National Adaptation Plans (NAPs)

The NAP helps countries develop plans to respond to climate change's present and future impacts. They are aimed to reduce vulnerability to the severe effects of climate change and strengthen adaptive capacity and resilience. NAPs also play an essential role in updating and improving the adaptation elements of the NDCs.

New Collective Quantified Goal (NCQG)

The NCQG is the new amount that must be mobilised by developed countries every year from 2025 onward to finance climate action in developing countries. It has to be more than the \$100 billion that developed countries, collectively, had promised to raise every year from 2020, but had failed to deliver.

The NCQG is expected to be finalised at COP29.

Global stocktake

It refers to a five-year review in which countries assess where they are in the fight against climate change, and what needs to be done in the next five years to make this fight more effective and potent.

Triple Renewable Energy

In 2021, the International Energy Agency (IEA) published its 'Roadmap to Net Zero by 2050' report, which said that if the world needs to meet the net zero goal, it has to commit to tripling global renewable capacity by 2030. If met, this single step could avoid carbon dioxide emissions by seven billion tonnes between now and 2030, the agency said. This would be equal to eliminating all the current carbon dioxide emissions from China's power sector.

Just transition

The term describes a shift to a low-carbon or net-zero economy without jeopardizing the rights of workers and the needs of communities, which could be affected due major changes to industries like fossil fuels.

Common but differentiated responsibilities (CBDR)

It is a principle of international law which states that different countries have different capabilities and responsibilities to address cross-border environmental problems such as climate change. One example of the CBDR principle is the 1989 Montreal Protocol, an international treaty designed to protect the ozone layer. It gave a 10-year grace period for 'developing countries' to implement the control measures.

Loss and damage

There is no agreed definition of 'loss and damage' in the international climate negotiations, according to the United Nations Development Programme (UNDP). In broad terms, it refers to the unavoidable social and financial impacts caused by extreme weather events.

At COP27, a loss and damage fund was established to provide financial help to countries struck by climate disasters. A year later, at COP28 in Dubai, the fund was officially launched.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

5. COP29 begins in Azerbaijan: Everything you need to know

Introduction



The 2024 United Nations Climate Change Conference (COP29) kicked off on November 11 in Baku, the capital of Azerbaijan. Delegates from about 200 countries, business leaders, climate scientists, Indigenous Peoples, journalists, and various other experts and stakeholders are expected to attend the summit, which will last until November 22.

The primary goal of COP29 is to bring together countries to develop a shared plan for curbing further global warming. It will also focus on scaling up climate finance to help developing nations tackle the adverse effects of climate change.

What is COP?

Conference of Parties, or COP, is the supreme governing body of the United Nations Framework Convention on Climate Change (UNFCCC) — an international treaty, signed in

1992, that has provided a basis for climate negotiations. The UNFCCC commits parties (countries which have joined the treaty) to act together to stabilise greenhouse gas concentrations “at a level that would prevent dangerous anthropogenic (human-induced) interference with the climate system”. Currently, there are 198 parties (197 countries plus European Union) to the UNFCCC, constituting near universal membership.

One of the significant tasks for the COP is to “review the national communications and emission inventories” submitted by member states, according to the UNFCCC’s website. “Based on this information, the COP assesses the effects of the measures taken by Parties and the progress made in achieving the ultimate objective of the Convention,” the website said.

Every year since 1995 — except in 2020 due to the COVID-19 pandemic — the parties come together to discuss and agree on international climate policy. The summit is known as the United Nations Climate Change Conference.

What are some of the milestones of COP?

The first major breakthrough came at COP3 in Kyoto in 1997 when the parties adopted the Kyoto Protocol. The international treaty placed obligations on the set of rich and industrialised countries to cut their greenhouse gas emissions by assigned amounts. “Targets varied by country but averaged at a 4.2% reduction by 2012 below 1990 levels,” according to a report in the London School of Economics and Political Science (LSE).

With the Kyoto Protocol set to expire in 2012, at COP15 in Copenhagen in 2009, parties tried to establish a successor to the treaty. However, the attempt failed. Instead, the summit ended with the Copenhagen Accord, which included the 2 degree Celsius warming limit and reference to the 1.5 degree Celsius goal. It also comprised the idea of developed countries providing funding for mitigation and adaptation.

Three years later, at COP21 in Paris, 196 parties adopted the landmark Paris Agreement — a legally binding international treaty to limit global temperatures to below 2 degree Celsius, and preferably below 1.5 degree Celsius. The parties also agreed to submit their climate action plans, known as nationally determined contributions (NDCs), by 2020.

The next milestone came during COP26 in Glasgow 2021 in the form of the Glasgow Pact. The parties made a commitment to “phase down” the use of coal (this language was weakened from “phase out” late in the negotiations) and to phase out “inefficient fossil fuel subsidies”. This was the first time that a UN climate agreement explicitly mentioned coal.

At last year’s COP28 in Dubai, a Loss and Damage fund was officially launched. The fund is meant to provide financial help to countries struck by climate disasters.

What are some of the criticisms of COP?

Over the years, the biggest criticism has been the COP’s failure to provide climate finance to developing nations. For instance, in 2009, the wealthiest countries — which are disproportionately responsible for the climate crisis — promised to raise every year from 2020

for developing nations to help them reduce greenhouse gas emissions and adapt to the impacts of the climate crisis. They failed to deliver on their promise.

To make matters worse, a 2021 report by UN Climate Change, the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), showed that developing countries would require a total of about \$6 trillion annually between then and 2030 just to implement their climate action plans. This amount is far more than what developed nations had promised in 2009.

Experts have also pointed out that parties have not been doing enough to limit global warming to 1.5 degree Celsius. During COP28, an analysis by the International Energy Agency (IEA) said the world is on track to breach the threshold, despite pollution-slashing pledges made by dozens of countries at the summit.

What should be expected from COP29?

Climate finance is at the top of the agenda of COP29. The parties are negotiating the New Collective Quantified Goal (NCQG), a new amount that must be mobilised by developed countries every year from 2025 onward to finance climate action in developing countries. It has to be more than the \$100 billion that developed countries, collectively, had promised to raise every year from 2020.

However, talks over the NCQG in recent months have been deeply divided. Parties disagree on almost every element of the fund, including “the amount of money that needs to be raised, who should contribute, what types of finance should feed into it, what it should fund and what period of time it should cover”, according to a report by Carbon Brief. It remains to be seen how member states finalise the NCQG.

On Monday, COP29 adopted standards for the creation of carbon credits under Article 6.4 of the Paris Agreement, breaking a years-long deadlock and allowing countries to emit greenhouse gases if they offset emissions elsewhere.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

6. Why India and China have pushed against climate change-related trade measures at COP29

Introduction

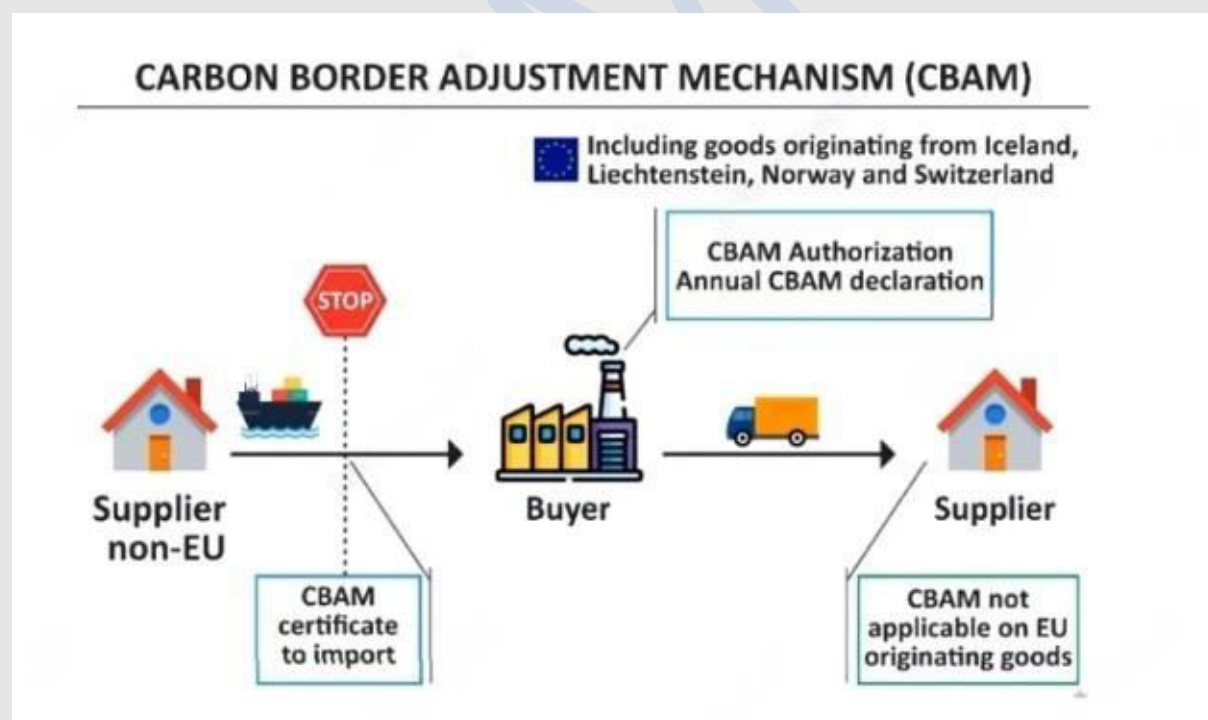
A formal submission by China, India and some other countries to discuss climate change-related trade measures such as those introduced in the European Union (EU) delayed the opening plenary of the climate conference in Baku, Azerbaijan, on Monday (November 11) by several hours. The request was eventually put aside for the time being but the issue is unlikely to wither away.

Trade restrictions on grounds of promoting climate objectives are expected to trigger many more battles, and result in greater protectionism and disruptions in global supply chains. It could also lead to some positives such as greater innovation in green technologies, and the adoption of higher environmental standards. At least that is the hope. However, as it happens in most cases, countries with limited capabilities and resources might find themselves at great disadvantage.

Climate-related trade restrictions

Last year, the EU rolled out its Carbon Border Adjustment Mechanism (CBAM), which taxes certain products coming in from other countries on the basis of their emissions footprint in their production process. For instance, if the imported steel was produced through a process that entailed higher emissions than the emissions standards for that product in Europe, it would be taxed.

CBAM allows industries in Europe to remain competitive while continuing to maintain high environmental standards. It prevents these industries from relocating their production to countries where the production might be cheap owing to less strict emission norms, a situation described as carbon leakage. In the process, it hopes to contribute to reducing global emissions.



However, it hurts the export competitiveness of developing countries such as China and India. These nations complain that the move is an unfair barrier to trade and violative of provisions of several international agreements. For example, the Paris Agreement has provisions that seek to protect developing countries from the social and economic impacts of "response measures" taken to fight climate change. Last year, the final outcome of the Dubai climate meeting

acknowledged that “measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade”.

The developing countries also point out that CBAM overlooks the “differentiation” embedded in the global climate architecture that allows them to be treated differently than the developed nations.

Industries in developed economies, with emissions standards comparable to the EU, stand to benefit from a CBAM-like measure, since their products would not be taxed and, hence, become more competitive in the European market. CBAM, thus, can have the net effect of helping industries in the developed world while putting those in developing countries at a disadvantage.

On behalf of the BASIC group of countries that also includes India, Brazil and South Africa, China made a request to discuss these issues at the climate meetings. It met with strong opposition from the EU and some other countries, and the proposal has been put on the backburner for now.

CBAM is not the first-of-its-kind trade measure linked to climate change but likely to be the most impactful till now. The EU is a large market, accounting for about 15% of global imports. CBAM currently applies to only a handful of goods — emission-intensive products such as steel, aluminium or cement — but is set to be expanded on a large number of other items in coming years. Other countries might also be tempted to bring in similar regulations. The United Kingdom and Canada are already reported to be considering their own versions.

There are also other non-tariff trade measures linked to climate change. Several regions, including the EU, for example, ban the import of products made from illegally harvested forests. Even the incentives offered in the Inflation Reduction Act (IRA) to clean energy technology or electric vehicle industries in the United States are examples of climate-related non-tariff measures that can impact and reshape global trade.

Accelerating protectionism

Climate change is also accelerating a process of increasing protectionism that is being driven by several other considerations, including economic, strategic, and security-related. Incoming US President Donald Trump’s promise of imposing tariffs on imported goods — higher on those coming in from China — for example, is not cloaked in climate imperatives. But it does play on America’s fears on energy security which is threatened by the heavy concentration of renewable energy supply chains in China.

In fact, the dominance of China in the control of resources and technologies related to new energy sources — solar, wind, batteries, and critical minerals — far exceeds that of oil-producing countries in the fossil fuel era. This too has been facilitated by climate change that is forcing a global energy transition.

The experience during the Covid-19 pandemic has made the world suspicious and distrustful of global supply chains, especially those heavily concentrated in one country or region. It has led to a growing trend of countries trying to gain as much control over key resources and production as possible, even though this goes against basic economic lessons — producing goods at a lower opportunity cost compared to others can benefit everyone. It might still be possible to produce and trade relatively benign products such as clothes, footwear or simple toys on these principles, but more sophisticated products, particularly those involving electronics, are likely to face increasing scrutiny.

A study by the Asian Development Bank Climate published in February this year showed that measures such as CBAM would likely have minimal impact on reducing greenhouse gas emissions compared to some other emissions trading options that are available. But climate change does offer a convenient guise for countries to meet their economic or other objectives.

Climate disruptions to trade

There are other ways in which climate change could be reshaping global trade. Global supply chains, with footprints spread over a large number of countries, have large risk exposure from the increasing frequency and ferocity of natural disasters induced by climate change. Disruptions in supplies and large-scale economic losses due to these natural disasters are making countries reduce their dependence on such networks. This too is leading countries to encourage “nearshoring” (moving production closer home) or “reshoring” (moving production back home).

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

7. Why smog came early to Punjab, parts of north India this year

Introduction



As winter begins to set in across northern India, a familiar but troubling phenomenon is blanketing cities, towns, and villages: smog. This dense, choking layer of pollution has become an annual occurrence in the northern part of the country, including Punjab, Haryana, Delhi, and parts of Uttar Pradesh. However, this year, smog has appeared much earlier, right at the onset of winter, causing a sharp decline in air quality and impacting public health, travel,

and daily routines.

So, why has smog become so pervasive, especially at the very beginning of winter?

What is smog?

Smog is a type of air pollution that creates a hazy or foggy atmosphere, reducing visibility and affecting air quality. Originally used in the early 1900s to describe a blend of smoke and fog, the term “smog” referred to pollution from coal-burning, especially common in industrial areas. Today, smog is still prevalent in densely populated cities with high levels of industrial and vehicular emissions.

Smog forms when pollutants such as nitrogen oxides, volatile organic compounds (VOCs), and other harmful particles are released into the atmosphere from sources like factories, vehicles, and power plants. These pollutants react chemically in the presence of sunlight, creating a harmful mixture. When combined with fog or high humidity, this reaction produces a thick haze, further reducing visibility and posing risks to public health.

Does smog come every winter?

Yes, it comes every year, generally by the end of November or in December in the Northern plains. Winter brings lower temperatures and weaker sunlight, leading to atmospheric inversion—a phenomenon where a layer of warmer air traps cold air close to the ground. This inversion layer holds pollutants near the surface, preventing them from dispersing.

Is stubble burning responsible?

Stubble burning is widely cited as a major contributor to smog in northern India, particularly in states like Punjab and Haryana.

Experts note that smoke from burning stubble releases high levels of particulate matter, carbon monoxide, sulfur dioxide, and nitrogen oxides. However, stubble burning isn't the only cause of smog — it plays a part in intensifying pollution levels across the region.

What are the other pollutants that contribute to smog?

Beyond stubble burning, year-round sources, including vehicular emissions, industrial smoke, and construction dust, worsen during winter due to the trapped atmospheric conditions. Vehicle exhaust, in particular, releases nitrogen dioxide and fine particulate matter (PM2.5), which are significant contributors to smog. Thermal power plants and factories also emit a steady stream of pollutants, compounding the problem.

What led to the early smog this year?

Experts explain that specific meteorological conditions in northern India this year have created an environment more favourable for early smog. Prolonged slow wind speed — which is around one km per hour — at the onset of winters just after Diwali led to accumulation of the pollutants in the air, resulting in poor air quality which contributed to the early smog.

Surinder Kumar, Director of the IMD Chandigarh office, said that weak western disturbances (weather systems that bring rain to the western Himalayas), primarily active in the hills, have brought moisture into the plains, which is also responsible for the smog. Typically, this smog

appears in the northern plains by late November or early December, he said. "Limited rainfall reduces the natural cleansing of the atmosphere, allowing pollutants to remain suspended for longer durations causing early smog," Kumar said.

Another factor is that Diwali was 12 days earlier this year than the last, and celebrated for two days by many because of astrological factors. Widespread bursting of firecrackers releases large amounts of particulate matter into the air. Fireworks release toxic metals and gases that contribute to the haze, creating immediate and harmful effects on air quality.

Experts also said that climate change is increasingly altering weather patterns, contributing to unseasonable smog and prolonged pollution episodes. The smog crisis in northern India is a complex issue rooted in seasonal patterns, agricultural practices, industrial emissions, and changing climate dynamics, they said, adding that some solutions—such as incentivising alternative stubble management techniques and tightening emission standards—show promise.

The average temperature of Punjab on Wednesday was below normal by -2.9°C, and it was below normal by -2°C in Haryana, also shallow moderate fog is expected till November 15.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

8. Why BS-III petrol and BS-IV diesel four-wheelers have been banned in Delhi-NCR

Introduction

With rising pollution levels and persistent smog in Delhi, the government has introduced strict measures to address air quality concerns. Under the implementation of the Graded Response Action Plan (GRAP) Stage III, a ban has been enforced on BS-III petrol and BS-IV diesel four-wheelers within the National Capital Region (NCR).

Recently, the Delhi Traffic Police issued fines of ₹20,000 each to 514 light motor vehicles falling under these categories. Let's explore the rationale behind this ban and the significance of emission standards in India.



Understanding Bharat Stage Emission Standards

The Bharat Stage (BS) emission standards are regulatory measures introduced by the Indian government to control air pollution from vehicles with internal combustion engines. These norms dictate the permissible levels of air pollutants emitted by vehicles and other engine-powered equipment.

India began implementing emission standards in 1991, with significant updates in 1996 when vehicle manufacturers were required to introduce technologies like catalytic converters to reduce emissions. Environmental considerations led to the introduction of fuel specifications, first notified in April 1996, and were gradually implemented by the year 2000.

India initially followed the European (Euro) emission standards, albeit with a lag of five years. Following a landmark ruling by the Supreme Court in April 1999, the government introduced Bharat Stage-I (BIS 2000) and Bharat Stage-II norms, which were equivalent to Euro I and Euro II, respectively. BS-II was implemented in NCR and other major cities, while BS-I covered the rest of the country.

Evolution from BS-IV to BS-VI Standards

Over the years, India progressed from BS-II to BS-IV standards. In 2016, the government made a bold decision to skip BS-V and leap directly to BS-VI norms by 2020 to address the growing air pollution problem. Originally, BS-V standards were scheduled for 2019, but due to deteriorating air quality, the government accelerated the shift to BS-VI. As a result, all new vehicles were required to comply with BS-VI standards starting in 2020.

Key Differences Between BS-IV and BS-VI Norms

The most significant difference between BS-IV and BS-VI standards lies in the reduction of sulphur content in fuel. BS-VI fuels have around 80% less sulphur, decreasing from 50 parts per million (ppm) in BS-IV to just 10 ppm in BS-VI. This change substantially lowers the emission of pollutants:

- Nitrogen oxides (NOx) emissions from diesel vehicles are reduced by nearly 70%.
- NOx emissions from petrol vehicles are reduced by approximately 25%.

According to the United States Environmental Protection Agency (EPA), exposure to high levels of nitrogen oxides can exacerbate respiratory conditions like asthma, cause coughing, and make breathing difficult. Long-term exposure is linked to an increased risk of developing asthma and greater susceptibility to respiratory infections. Additionally, gaseous sulphur oxides can damage vegetation, reducing plant growth and harming foliage.

Challenges Faced During the Transition to BS-VI

When the BS-VI standards were announced in 2016, automotive manufacturers expressed concerns about their existing stock of BS-IV vehicles. They requested an extension to sell off these vehicles by March 31, 2020. However, experts noted that the benefits of higher-grade BS-VI fuel would only be realized if used with BS-VI-compliant engines. Running BS-VI fuel in older BS-IV engines or vice versa could not only fail to reduce emissions effectively but also risk damaging the engine over time.

The ban on older vehicles, like BS-III petrol and BS-IV diesel models, is thus a critical step in curbing pollution and improving air quality in Delhi-NCR, aligning with India's broader efforts to achieve cleaner air through stringent emission norms.

Relevance: GS Prelims & Mains Paper III; Environment

9. Can Fossil Fuels Be Regulated Like Nuclear Weapons?



A New Approach: Fossil Fuel Non-Proliferation Treaty (FF-NPT)

The Fossil Fuel Non-Proliferation Treaty (FF-NPT) is a bold proposal to regulate fossil fuels—coal, oil, and gas—akin to how nuclear weapons are controlled. Advocates believe this treaty is essential for phasing out fossil fuels, transitioning to renewable energy, and ensuring a just and equitable energy shift.

The initiative was conceptualized in 2016 and officially launched in 2019, inspired by the global treaties that addressed the threat of nuclear weapons decades ago. The FF-NPT aims to address the gaps left by the Paris

Agreement, which, despite its significance, does not mention fossil fuels directly.

Growing Support for the FF-NPT

The FF-NPT has garnered endorsements from various stakeholders, including former UN Secretary-General Ban Ki-Moon, indigenous communities, and several Small Island Developing States (SIDS). These island nations, such as Vanuatu, Tuvalu, and Fiji, are among the most vulnerable to climate change despite contributing minimally to global warming.

Recently, at COP29 in Baku, 10 more countries joined discussions on the treaty, and the Global Alliance for Banking on Values, representing 70 sustainable banks, announced its support, marking the first endorsement by financial institutions. Colombia, a major coal producer, also backed the treaty at COP28 in 2023.

The Case for Regulation

During COP29, Tzeporah Berman, Chair and Founder of the Fossil Fuel Non-Proliferation Treaty Initiative, highlighted alarming trends. Fossil fuel emissions in 2024 are projected to be 8% higher than in 2015 when the Paris Agreement was signed. Without drastic action, the planet is headed for a catastrophic 3°C of warming, far exceeding the 1.5°C target.

The treaty seeks to address this crisis through three key pillars:

- 1. Non-Proliferation:** Halting the expansion of fossil fuel production worldwide.
- 2. Fair Phase-Out:** Ensuring an equitable reduction in fossil fuel use, with nations historically responsible for emissions leading the transition.
- 3. Just Transition:** Promoting renewable energy and supporting workers, communities, and economies dependent on fossil fuels.

Financial and Implementation Challenges

One of the significant hurdles for the FF-NPT is financing. Many climate-vulnerable nations lack the resources to transition away from fossil fuels or protect themselves from climate impacts. Harjeet Singh, Global Engagement Director for the Fossil Fuel Treaty Initiative, emphasized the need for robust financial support, which could come through mechanisms such as the New Collective Quantified Goal (a financial target post-2025) or Just Transition Work Programmes under the Paris Agreement.

India's Role

Although the FF-NPT has primarily focused on smaller nations in Asia, Africa, and Latin America, larger fossil fuel-dependent countries like India are seen as critical to its success. India, with rising fossil fuel emissions projected at 4.6% for 2024, stands to benefit significantly from the treaty. Advocates argue that India's participation could enhance global climate equity while supporting its transition to renewable energy.

The Path Ahead

The FF-NPT offers a comprehensive framework to address the dual challenges of climate change and energy justice. However, its success depends on collective global action, particularly from fossil fuel-intensive nations, and the availability of financial resources to

support vulnerable economies. As discussions continue, the treaty holds the potential to reshape the world's energy landscape and mitigate the worst impacts of climate change.

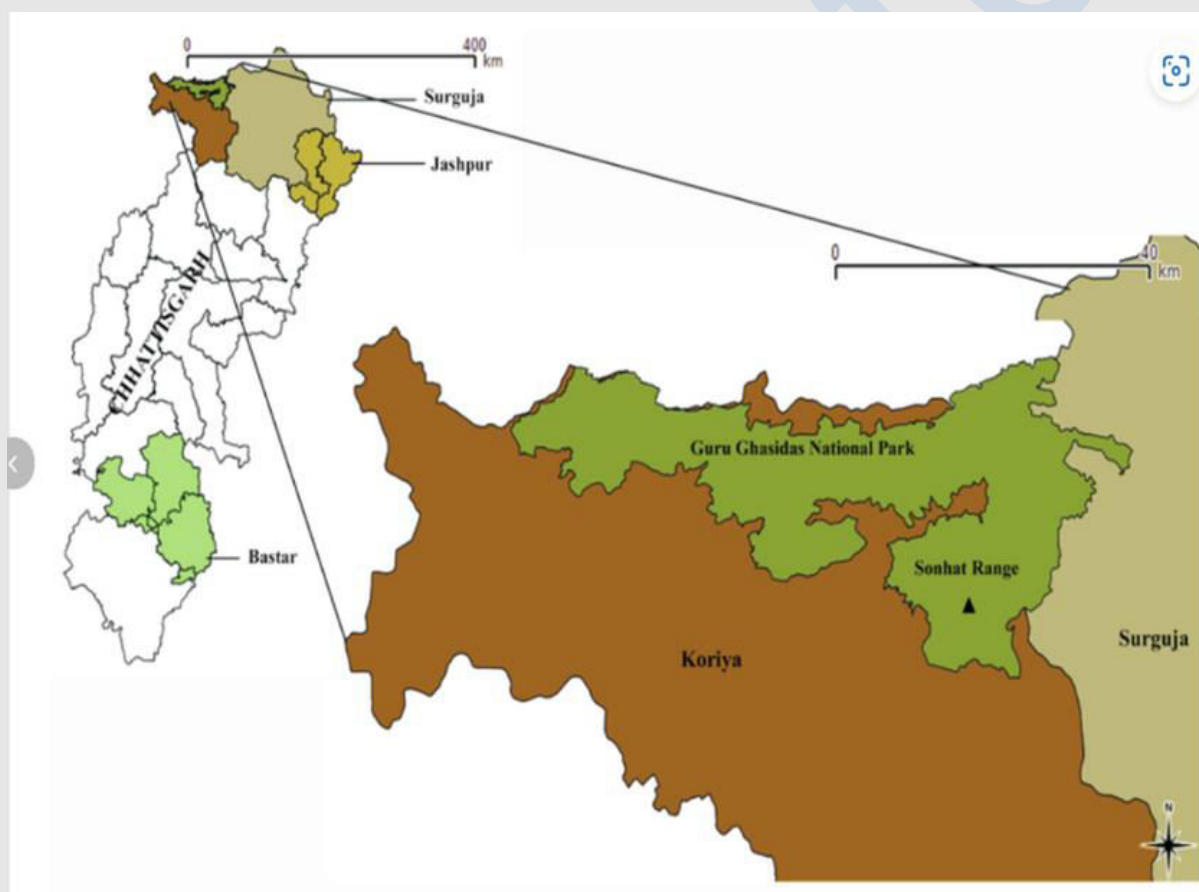
Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

10. 56th Tiger Reserve in India: Guru Ghasidas-Tamor Pingla Tiger Reserve

Overview

The Guru Ghasidas-Tamor Pingla Tiger Reserve in Chhattisgarh has been notified as the 56th Tiger Reserve of India, as announced by Union Minister for Environment, Forest and Climate Change, Shri Bhupender Yadav. The reserve spans an area of 2,829 sq. km, making it the third-largest tiger reserve in the country.



Key Details

- Location: Manendragarh-Chirmiri-Bharatpur, Korea, Surajpur, and Balrampur districts of Chhattisgarh.

- Area Breakdown:

O Core/critical habitat: 2,049.2 sq. km (includes Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary).

O Buffer zone: 780.15 sq. km.

- National Ranking:

O 3rd largest after Nagarjunasagar-Srisailem (Andhra Pradesh) and Manas (Assam) Tiger Reserves.

- Landscape Connectivity:

O Contiguous with Sanjay Dubri Tiger Reserve (Madhya Pradesh).

O Connected to Bandhavgarh (Madhya Pradesh) and Palamau (Jharkhand) Tiger Reserves.

- Geographical Features:

O Situated in the Chota Nagpur and Baghelkhand Plateaus.

O Characterized by diverse terrains, dense forests, and rivers conducive to wildlife habitation.

- State Contribution: Chhattisgarh now has four tiger reserves, bolstering tiger conservation efforts under the NTCA's Project Tiger.

This notification marks a significant milestone in India's ongoing efforts to protect and conserve its tiger population and biodiversity.

Relevance: GS Prelims; Environment

Source: PIB

11. The China emissions paradox

Introduction

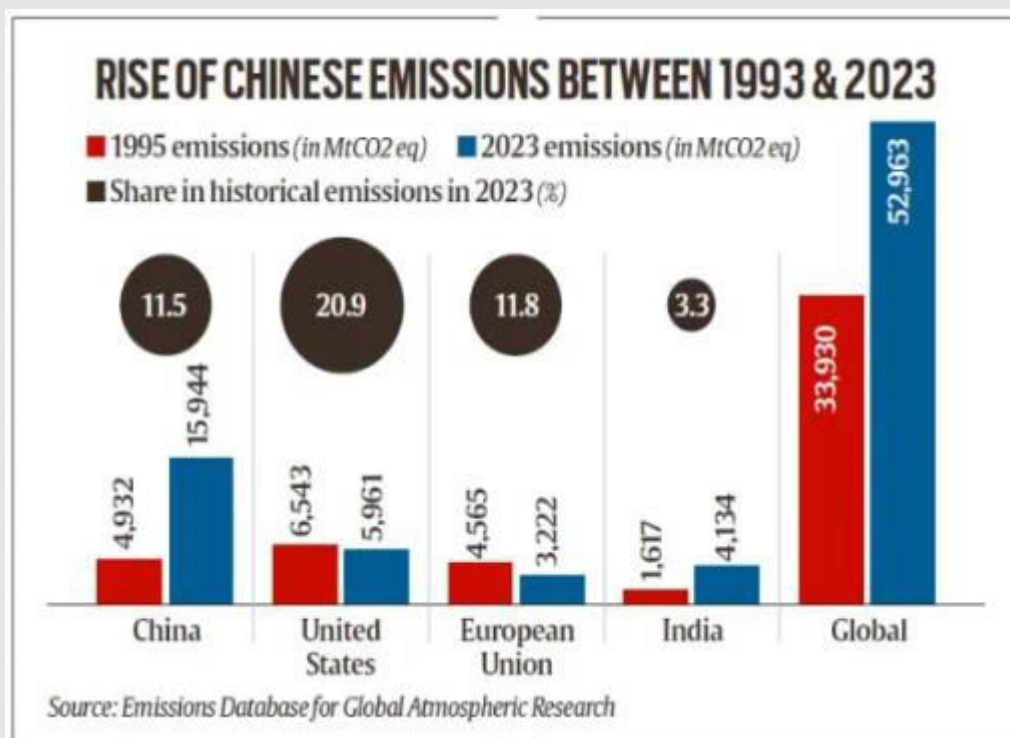
Despite being the world's second largest economy, China is considered a "developing" country by the United Nations, and is not mandated by the international climate change architecture to cut its greenhouse gas emissions in the short term.

However, China has been the world's biggest emitter for more than 15 years, and now accounts for well over 30% of annual global emissions. If China does not reduce its emissions, the world is unlikely to meet its emission reduction targets.

As things stand, the world is nowhere close to the minimum emission cuts required for 2030 – at least 43% over 2019 levels. Estimates suggest that annual global emissions in 2030 would be barely 2% below 2019 levels.

Why China is crucial

The need for Chinese emission cuts is almost never discussed. Now, a first-of-its-kind analysis has suggested that China needs to reduce its emissions by 66% from current levels by 2030, and by 78% by 2035 to become 1.5-degree compliant.



The modelling has been done by Climate Action Tracker (CAT), an independent scientific project that measures progress towards the 1.5-degree and 2-degree Celsius temperature targets mentioned in the Paris Agreement adopted in 2015.

The overarching goal of the agreement, which entered into force in 2016, is to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels”, and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels”.

The international climate framework applies a differentiated approach, demanding higher climate actions, including emission cuts, from the rich and developed world, while allowing developing countries greater flexibility to plan their energy transitions.

So, China is not expected to make the required deep emission cuts in the 2030 or 2035 timeframes. In fact, China’s emissions are still increasing, and are expected to be about 0.2% higher this year than in 2023, according to the latest estimate of the Global Carbon Project, which seeks to quantify GHG emissions and their causes.

Double-edged weapon

But paradoxically, the hypothetical situation in which China does manage to make these very deep emission cuts in the short term, may not be in the best interests of the world.

This is because, ironically enough, it can have the effect of slowing down the deployment of renewable energy — not just within China, but in the rest of the world as well.

Despite very rapid deployment of renewable energy like wind or solar — it added more than 300 GW of renewables just last year — China remains heavily dependent on fossil fuels. The share of renewable energy in its primary energy supply is still in single digits, and coal continues to generate more than half the country's electricity.

As of now, renewables are only adding new capacities in the country — they are not replacing fossil fuels. Emissions reductions would require the rapid phasing out of coal and other fossil fuels. This can have a negative impact on industrial production.

Importantly, the manufacture of solar panels and wind turbines that are used to harness renewables like solar or wind, involves the liberal use of fossil fuels. And the global production of solar panels and wind turbines, as well as their supply chains, are heavily concentrated in China.

China controls more than 80% of the global manufacturing of solar panels, dominating every step of the process, and about 60% of the global wind turbine production.

Supplies of other clean energy technologies such as batteries, hydrogen electrolyzers, and critical minerals — all of which are crucial to effect the global energy transition — are also concentrated in China.

Deep emission cuts in the short term could thus constrain the global supplies of renewable energy equipment, and slow down energy transitions everywhere. It would surely jeopardise the global renewable energy tripling target for 2030.

For world, it's Catch-22

If China does not reduce its emissions quickly, the global emission targets for achieving the 1.5-degree threshold are likely to be missed. But if it does so, that might disrupt supplies of renewable energy across the world, making it difficult for countries to phase out fossil fuels, and thus reduce emissions.

Several countries are now realising this danger of over-dependence on China for critical technologies and resources related to clean energy. The disruption of supply chains during the Covid-19 pandemic exposed the vulnerabilities of over-concentrated production processes. At least a part of United States President-elect Donald Trump's anxieties related to China seem to stem from these concerns.

The diversification of renewable energy supply chains, particularly solar photovoltaic manufacturing, is now a central theme of most discussions on energy transitions. It is not that other countries cannot manufacture these products — but competing against the Chinese on costs could be difficult. According to the International Energy Agency (IEA), China is the most cost-competitive location for manufacture of all components of the solar PV supply chain.

"Costs in China are 10 per cent lower than in India, 20 per cent lower than in the United States, and 35 per cent lower than in Europe," the IEA said in an assessment published in 2022. (Special Report on Solar PV Global Supply Chains)

Beijing's unique advantage

No country has benefited from the international climate framework as much as China has. China happened to be at the right place at the right time — but it also made full use of the opportunities that came its way.

Even at the time the UN Framework Convention on Climate Change (UNFCCC) was finalised in the 1990s, China's emissions were not insignificant. It accounted for more than 10% of global emissions at the time — much more than India's share currently.

But because China did not have historical emissions, it was not mandated to control or reduce its emissions.

China's emissions have grown almost four times since then, even as its economic indicators have become comparable to or better than many developed countries. Its share in historical emissions has also grown to about 11.5%, equivalent to the contribution of the European Union.

China's meteoric rise to become the second largest economy and one of the two superpowers in the world can at least partly be attributed to the fact that it has not had to worry about imposing tough emissions standards, which its competitors like the US, Japan, or Germany had to.

It is not as though China is not contributing to the global fight against climate change. Indeed, it is at the centre of the renewable energy transition.

By the end of this year, it will have almost certainly achieved its target of reaching 1,200 GW of renewable energy capacity, six years ahead of deadline. Possibly its most important contribution has been to ensure cheap manufacturing of renewable energy, which has made solar and wind energy affordable. In most countries, solar is now the cheapest source of power when the Sun is available.

But China's emissions are now almost three times that of the US — and it continues to remain largely unconstrained by climate change regulations. That is why any emission reduction targets in the near term, whether 2030 or 2035, remain extremely unrealistic, and unlikely to be achieved.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

12. What to know about indoor air quality and purification

Overview

The more privileged among us spend most of the day indoors — in homes, offices, gyms, and air-conditioned vehicles — where air quality can be controlled. Outdoor exposure is typically limited to commutes or errands, during which a properly fitted N95 mask is the only reliable way to reduce exposure to harmful pollutants.

But for the vast majority of Indians, outdoor air is unavoidable. Street vendors, delivery workers, labourers, and those living in unsealed homes face prolonged exposure to pollution. They lack the resources to create cleaner air bubbles for themselves, and thus bear a disproportionately higher burden of pollution.

Improving indoor air quality

Improving indoor air quality starts with managing exposure to PM2.5, the primary pollutant of concern which is linked to respiratory diseases, cardiovascular conditions, and neurological disorders.

In most of North India and cities across the country, PM2.5 levels exceed the World Health Organization's safe limits almost year-round, making indoor air quality management essential for those who can afford it.

The first step is to limit the entry of outdoor pollutants. Keeping windows and doors closed prevents polluted air from seeping inside, while sealing gaps around windows, doors, and vents reduces air leaks.

Using an air purifier, especially in spaces like bedrooms where significant time is spent, is key to reducing exposure. Limiting the volume of air the purifier needs to clean — by closing doors to other rooms — further enhances efficiency.

The need for enclosed spaces highlights the oxymoronic nature of "outdoor air purifiers" (smog towers), which cannot meaningfully reduce pollution due to the virtually infinite volume of outdoor air.

Even indoor purification has limitations for those living in unsealed homes, where outdoor pollutants infiltrate easily.

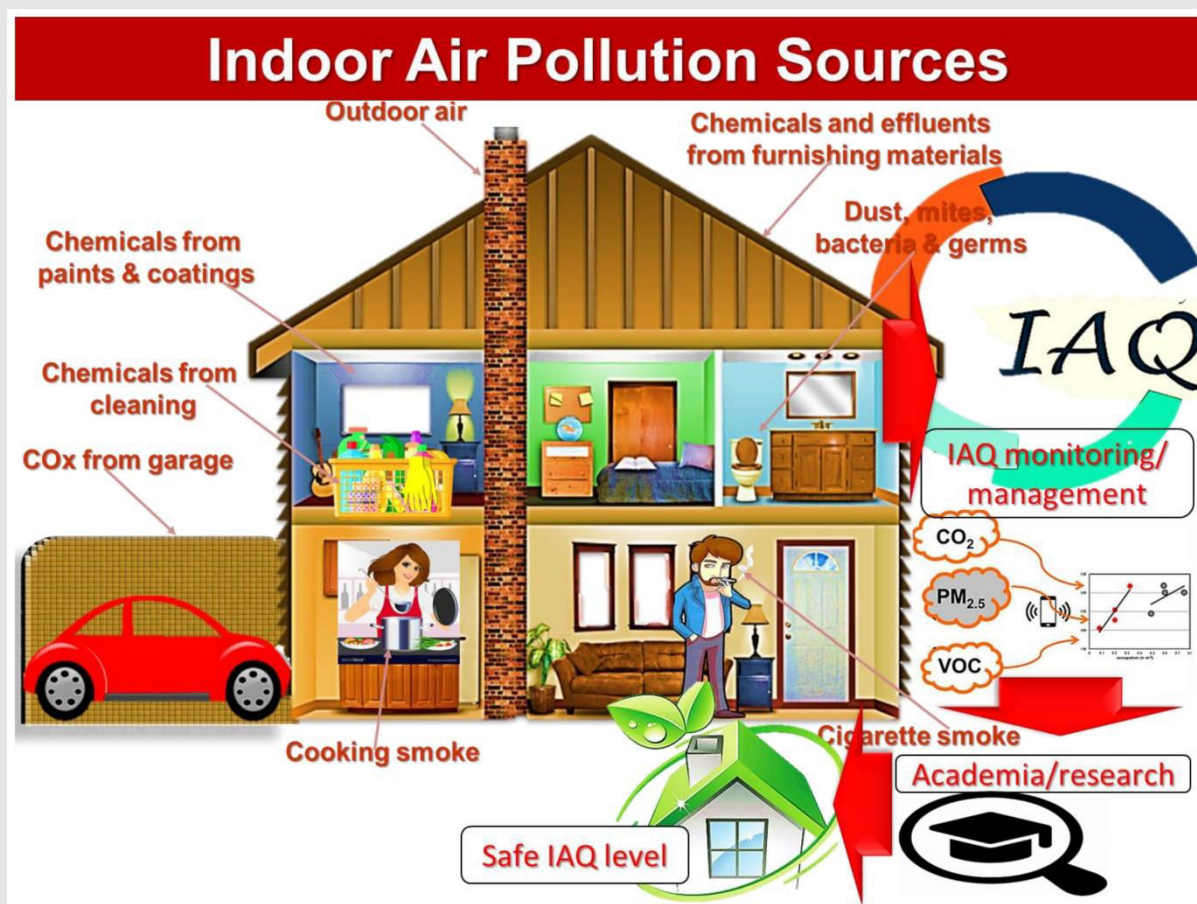
Indoor sources of pollution

While outdoor air pollution dominates discussions, indoor sources also significantly affect air quality.

Cooking, especially with solid fuels, releases fine particulate matter, carbon monoxide, and other harmful gases. Kitchens frequently have the highest levels of air pollution in a home — and even in households with modern stoves, poor ventilation can lead to a build-up of harmful pollutants.

The burden of this indoor air pollution is gendered — entrenched patriarchy ensures it is women who typically spend more time in the kitchen, and who are, therefore, disproportionately affected.

Burning incense or candles further worsens indoor air quality by releasing fine particles and volatile organic compounds.



Measuring air pollution

Many buildings, workplaces, and gyms claim to have air filtration systems, but these claims are often unverifiable without independent monitoring. Using low-cost air quality sensors to measure PM_{2.5} levels indoors can help assess whether additional filtration is needed.

For homes without centralized filtration systems, particularly in regions like North India where outdoor air is consistently poor, investing in an air purifier is almost always necessary. Even when the air appears clear, relying on visibility or media reports as indicators of pollution can be misleading. Checking data from nearby air quality monitors provides a more accurate picture, and reinforces the need for indoor air quality management.

What to know about purifiers

An air purifier is essentially a fan paired with a HEPA (High Efficiency Particulate Air) filter, designed to trap fine particulate matter like PM2.5. Many modern purifiers come with sensors that automatically adjust fan speed based on air quality, improving efficiency. For those on a budget, a DIY purifier can be made using a HEPA filter and a fan.

HEPA filters are critical for trapping PM2.5, while activated carbon filters, though not essential for particulate matter alone, are useful for capturing gaseous pollutants.

A key metric is the Clean Air Delivery Rate (CADR), which indicates how quickly a purifier can filter air in a given space. Higher CADR ratings are particularly important for larger rooms.

It is essential to avoid purifiers that generate ozone, as they can do more harm than good. While stratospheric ozone protects us from UV radiation, ground-level “bad ozone” can worsen indoor air quality by producing additional pollutants through chemical reactions.

In cars, using the air conditioner in recirculation mode with windows closed helps minimize the intake of outdoor air, creating a safer environment inside the vehicle. However, this also highlights an ironic reality: AC cars emit pollutants while shielding their occupants from the very air they contribute to polluting.

Ethical issues in air purification

While air purifiers and similar measures can reduce health risks for those who can afford them, these solutions are inherently inequitable. This selective insulation can also diminish the urgency to push for systemic changes, which ultimately perpetuates the problem.

Measures to mitigate exposure are temporary and individualistic, addressing the symptoms rather than the root causes of air pollution. Worse, they risk exacerbating existing inequalities. The solution lies ultimately in improving outdoor air quality — a topic on which much ink, including by this author, has already been spilled.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

13. Argentina considering leaving the Paris Agreement: What does it mean?

Introduction

Argentina’s far-right President Javier Milei is considering withdrawing his country from the Paris Agreement, which aims to curb global greenhouse gas (GHG) emissions, according to several Western media reports. The speculation surfaced after Milei’s government asked its negotiators to leave the ongoing COP29 climate summit last week.

Argentina’s review of the landmark climate treaty comes at a time when the world is preparing for President-elect Donald Trump to withdraw the United States from the deal for the second time.



What is the Paris Agreement?

The Paris Agreement is an international accord that was adopted by nearly every country in 2015 to address climate change and its adverse effects. Its primary goal is to substantially reduce GHG emissions in a bid to limit global warming in this century to “well below” 2 degrees Celsius above pre-industrial levels, while pursuing the means to curb warming to 1.5 degrees. The agreement mentions the safer limit of 1.5 degrees based on a fact-finding report which found that breaching the threshold could lead to “some regions and vulnerable ecosystems” facing high risks, over an extended, decades-long period.

The treaty also requires all Parties (countries which have joined the agreement) to state every five years what they are doing to tackle climate change — what is known as their nationally determined contribution (NDC). Each successive NDC is meant to reflect an increasingly higher degree of ambition compared to the previous version, according to the website of the United Nations Framework Convention on Climate Change (UNFCCC).

How does a country withdraw from the Paris Agreement?

Article 28 of the Paris Agreement lays out the procedure and timeline for a country's withdrawal from the treaty.

It says, “[a]t any time after three years from the date on which this Agreement has entered into force (this happened in 2016) for a Party, that Party may withdraw from this Agreement by giving written notification to the Depositary”.

The Article also states, “[a]ny such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.”

If a member state wants to withdraw from the treaty, it has to submit the notification of a withdrawal to the Office of Legal Affairs of the UN, based at UN Headquarters in New York.

Once the withdrawal notification has been received, it only becomes effective after one year (or later if the member state so says in the notification). Until the withdrawal comes into force, the member state remains in the Paris Agreement and has to fully participate in all activities under it, according to the UNFCCC website.

Why is Argentina considering leaving the treaty?

Argentina's Foreign Minister Gerardo Werthein told The New York Times that although the country's government is yet to make a decision on whether it will leave the treaty, it is reconsidering its participation in a deal that "has a lot of elements" that it does not agree with. "We are re-evaluating our strategy on all matters related to climate change... And so far, we have not made any other decision beyond standing down until things are clearer," he said.

Notably, President Milei is a climate denier. In the past, he has called climate change a "socialist lie". Last year, President Milei had vowed to withdraw Argentina from the Paris Agreement but later backed out.

Werthein told The NYT that Argentina's government doesn't deny the existence of climate change and the discussion around the causes behind the warming was a "philosophical issue." "We have different views on the reasons," he said. "We consider it to be linked to natural cycles, and we agree on the need to take measures to mitigate it."

What impact will Argentina's withdrawal have?

Experts fear that Argentina's exit could trigger a domino effect, causing other countries to reconsider their own participation. This could undermine the Paris Agreement and the world's climate goals — countries have to slash their emissions by 42% by 2030 and 57% by 2035 to ensure that the planet does not breach the 1.5 degree Celsius threshold.

Argentina is South America's second-largest economy and the world's 24th-largest emitter of GHGs. It comprises significant fossil fuel resources and exports, with the second-largest reserves of shale gas (a type of natural gas) and the fourth-largest reserves of shale oil worldwide.

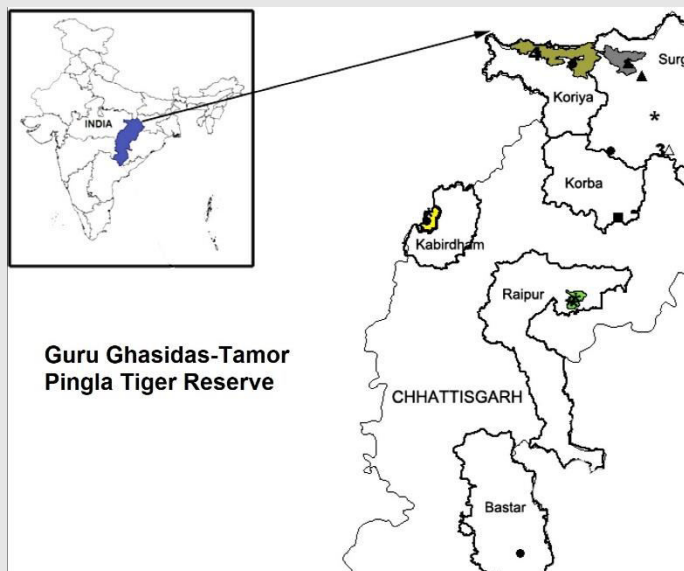
The withdrawal could also isolate Argentina. Argentina will become even less attractive as a trading partner for anyone who takes climate protection seriously, especially now that various countries, above all the EU, are introducing import duties for climate-damaging products.

However, some observers believe that President Milei will not be able to withdraw Argentina from the treaty easily due to domestic opposition. To implement the withdrawal, he will need the approval of the parliament which can prove to be a daunting task for him. Argentina ratified the Paris Agreement in 2016 and all international treaties ratified by the country hold constitutional status.

Relevance: GS Prelims; Environment
Source: Indian Express

14. Chhattisgarh's newest tiger reserve

Introduction



Earlier this month, the Chhattisgarh government notified the Guru Ghasidas-Tamor Pingla in the state as India's 56th tiger reserve.

The reserve is expected to help Chhattisgarh improve its tiger population, which has been dwindling in recent years. It also opens an avenue to the state's ambition of reintroducing cheetahs at the reserve — the last cheetah was spotted here in the 1940s.

What do we know about the reserve?

The Guru Ghasidas-Tamor Pingla is the fourth tiger reserve in Chhattisgarh after Achanakmar, Indravati, and Udanti Sitanadi. The total area of the new tiger reserve is 2,829.387 sq km, making it the third largest tiger reserve in India.

It is spread across four districts, Manendragarh-Chirmiri-Bharatpur (MCB), Korea, Surajpur, and Balrampur in the northern tribal Sarguja region of Chhattisgarh.

The Guru Ghasidas-Tamor Pingla falls between two other important tiger reserves located in Bandhavgarh, Madhya Pradesh and Palamau, Jharkhand. It is adjacent to Sanjay Dubri Tiger Reserve, also in MP.

The reserve comprises a wide range of wildlife species (apart from tigers) such as elephants, sloth bears, vultures, peacocks, wolves, leopards, otters, chitals, jackals, nilgai, bison, hyenas, langurs, cobras etc.

The Guru Ghasidas-Tamor Pingla is also rich in flora — comprising sal, saja, dhavda, kusum etc — different types of vegetation. It consists of hills, plateaus, valleys, and a river system which create a diverse habitat for its rich wildlife.

What is Chhattisgarh's current tiger population?

Currently, there are 30 tigers, including three sub-adults and two cubs, in the state, according to Sudhir Kumar Agrawal, Chief Wildlife Warden (CWLW), Chhattisgarh. There are five to six tigers at the Guru Ghasidas-Tamor Pingla Tiger Reserve as of now.

The state's tiger population fell from 46 in 2014 to 17 in 2022, the last official tiger status report released by the National Tiger Conservation Authority (NTCA), released in 2023, revealed.

How does Chhattisgarh plan to boost its tiger population?

Agrawal told The Indian Express that to increase the tiger population "we are proposing to bring a few tigresses [to the new tiger reserve] from Madhya Pradesh's Bandhavgarh and Sanjay Dubri to meet the proportion of male tigers."

He also said that several other measures are being implemented. These include creating rapid response teams, building a good rapport with villagers, developing informer-based wildlife protection/prevention, and deploying full-time guards.

How are authorities preparing for tiger conservation?

Authorities are preparing a comprehensive Tiger Conservation Plan (TCP), which will tackle different challenges that tiger conservation at the reserve may face. The plan includes:

- Developing a robust road and wireless connectivity to help patrol the hilly terrain, which forms more than 50% of the reserve.
- Increasing the prey base for tigers. To do so, in the past few years, authorities have been developing grasslands and water bodies. They have also translocated hundreds of cheetal and wild boars to the reserve from other places in the state.
- Strengthening the wildlife corridors with MP which have seen an increase in tiger population recently. Saurabh Singh Thakur, director of Guru Ghasidas National Park, told The Indian Express, "As the population of tigers in MP is increasing, the young and sub-adult tigers will be in search of a new territory and we have already witnessed Tiger migration from MP. So, the forest department's initiatives will be focused upon grassland development, water resource availability, prey base management and mitigating human-wildlife conflict for the two corridors from Sanjay and Bandhavgarh Tiger reserves to enable a natural transition for them."
- Creating awareness among villagers to avoid possible animal-human conflict. The reserve consists of 42 sparsely populated villages and the residents will have the option to relocate voluntarily. They will also be given priority for jobs related to the reserve. Authorities will train residents to run tourism-related businesses such as tour guides, homestays, boating, and handicrafts, among others.

What other preparations are taking place at the reserve?

The government is working on creating an entire eco-tourism circuit and getting a heritage site tag for the reserve. Apart from the jungle safari, infrastructure is being developed for eight

ancient cave painting sites, religious places, river walk, vulture siting, origin of Hasdeo river, 360 degrees view of Balam Ghat and waterfalls.

Relevance: GS Prelims; Environment

Source: Indian Express

15. Understanding Peak Oil and Its Evolving Implications

What Is Peak Oil?

Originally, "peak oil" referred to the point when global oil production would hit its highest level before declining permanently. However, the term now commonly refers to a peak in oil demand rather than supply.

The Initial Prediction

In 1956, geoscientist M. King Hubbert predicted that global oil production would peak by 2000, leading to economic turmoil. While production from easily accessible reserves peaked in the early 21st century, new technologies like fracking allowed oil production to keep growing, reaching 96.4 million barrels daily in 2023.

Demand Shifts to Green Energy

The global energy landscape is changing as renewables gain momentum. Key developments include:

- Record Growth: Solar, wind, and other renewable energy sources reached record growth in 2023, driven by innovations and lower costs.
- Increased Share: Renewables have grown from 19% to over 30% of the electricity mix since 2000.
- Investment Surge: Funding for clean technologies surpassed fossil fuel investment in 2023, with \$2 trillion allocated to renewables in 2024.

Economic and Climate Impacts

Investments in renewable energy align with efforts to reduce emissions and tackle climate change. Studies suggest that to limit global warming to 2°C, significant portions of oil, gas, and coal reserves must remain untapped.

Challenges for the Oil Industry

Despite rising renewable adoption, many oil companies continue to increase production. Risks include:

- Stranded Assets: New fossil fuel projects may become financially unviable as renewable costs decline.
- Shareholder Concerns: Investors are urging companies to align with clean energy goals to avoid financial losses.

Economic Risks for Nations

Countries heavily reliant on oil revenues face fiscal challenges as demand for fossil fuels declines. Reduced oil prices could affect budgets, economies, and living standards in these nations.

Transitioning Away from Oil

While the shift to clean energy is accelerating, fossil fuels will remain part of the energy mix in the short term, especially for:

- Backup Power: When renewable sources like wind and solar are intermittent.
- Hard-to-Decarbonize Sectors: Industries such as shipping, aviation, and heavy manufacturing.

A Balanced Energy Future

The International Energy Agency (IEA) emphasizes the potential to ensure reliable energy supplies while addressing the climate crisis. Executive Director Fatih Birol states, "Clean electricity is the future."

This gradual yet inevitable transition marks a critical turning point in the global energy landscape.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

16. Why the world needs a global plastic treaty

Overview

More than 170 countries will converge in Busan, Republic of Korea, to negotiate a new legally binding global treaty to end plastic pollution, including marine pollution. This is the fifth (and final) round of talks since 2022, when the UN Environmental Assembly (UNEA) agreed to develop such a by the end of 2024.

Why is a global plastic treaty required?

Owing to its adaptable properties and versatile use, plastic has become almost indispensable for humans. As a result, plastic production has skyrocketed across the world in recent decades. The annual global production of plastic doubled from 234 million tonnes (mt) in 2000 to 460 mt in 2019. Nearly half of this was produced in Asia, followed by North America (19%) and Europe (15%). Plastic production is expected to touch 700 mt by 2040, according to a report by the Organisation for Economic Co-operation and Development (OECD).

This has led to a crisis as plastic takes anywhere from 20 to 500 years to decompose, and less than 10% has been recycled till now, according to a 2023 study published by The Lancet. About 400 mt of plastic waste is generated annually, a figure expected to jump by 62% between 2024 and 2050.

Much of the plastic waste leaks into the environment, especially into rivers and oceans, where it breaks down into smaller particles (microplastic or nanoplastic).

This has severely impacted the environment and health of living beings.

Scientific studies submitted to the UN Environment Programme (UNEP) have found that exposure to chemicals in plastic can cause endocrine disruption and a range of human diseases including cancer, diabetes, reproductive disorders, and neurodevelopmental impairment. Plastic also harms species inhabiting marine, freshwater, and land ecosystems.

Plastic contributes to climate change as well. In 2020, it generated 3.6% of global greenhouse gas (GHG) emissions, with 90% of those quantifiable emissions coming from plastic production, which uses fossil fuels as raw material. The remaining 10% of emissions were released during plastic waste management and treatment. If current trends continue, emissions from the production could grow 20% by 2050, a recent report from the United States' Lawrence Berkeley National Laboratory said.

India contributes to a fifth of global plastic pollution, according to a study published in the journal Nature in September. It accounts for 20% of the world's global plastic pollution with emissions of 9.3 mt, which is significantly more than the countries next in the list — Nigeria (3.5 mt), Indonesia (3.4 mt) and China (2.8 mt), the study said.

What is on the negotiating table?

Negotiations primarily pertain to formulating a global set of rules that will address plastic pollution through its life cycle, from fossil-fuel based production, and the challenges of managing plastic disposal and waste. The final rules may also ban "particular types of plastic, plastic products, and chemical additives used in plastics, and set legally binding targets for recycling and recycled content used in consumer goods," according to a report by the Grist magazine.

There will be talks on 'just transition' for workers and those persons and communities whose livelihoods would be affected by the elimination of certain items and a move away from plastic production.

However, countries have been unable to converge on these crucial agenda items and there has been large variance in the positions taken by them.

For instance, countries have failed to agree on the framing and language of how to proceed with production caps. That is because oil and gas-rich countries, and major petrochemical-producing and plastic-producing nations have opposed negotiations around production caps. Saudi Arabia, Iran, Russia, Kazakhstan, Egypt, Kuwait, Malaysia, and India have expressed resistance to stricter mandates and have instead proposed downstream measures such as innovative waste management and sustainable plastic use, according to a report by the Centre for Science and Environment.

GLOBAL PLASTICS TREATY **TIMELINE**



On the other hand, Rwanda, Peru and the European Union have proposed ambitious targets for curbing plastic pollution. Rwanda has proposed a 40% reduction target by 2040, with 2025 as the baseline year.

Countries have also not been able to agree on the subject of finance. The UNEP's intergovernmental negotiation committee (INC), which is leading the negotiations, noted in

the draft text that countries should make efforts to increase the mobilisation of private funding, including alignment of public and private investment and finance to achieve the objectives of any potential treaty.

What is India's position?

India has made it clear that it does not support any restrictions on the production of polymers. Any restrictions are beyond the mandate of the UNEA's resolution adopted at Nairobi in 2022, according to India.

The country has also sought the inclusion of financial and technical assistance, and technology transfer in the substantive provisions of any final treaty.

On the exclusion of harmful chemicals used for plastic production, India has said that any decision should be based on scientific studies, and the regulation of such chemicals should be regulated domestically.

India banned the use of single-use plastics covering 19 categories in 2022. However, the country has said that a decision on the issue of including certain plastic items for phase-out in the final treaty should be "pragmatic" and "regulation should be nationally driven taking into account national circumstances."

For scientific and safe waste management, the country wants a mechanism to be established to assess infrastructural requirements. India has said that there must also be an assessment of the financial resources needed for waste management as well as the availability of adequate, timely, and predictable financial resources.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

17. Why India's toxic farm fire counting method is disputed

Introduction



India plans to count toxic farm fires by monitoring the burnt area they leave rather than the current method of using orbiting satellites to measure live fires.

Here is a look at how India counts farm fires – a major contributor to severe pollution in the north – and why its method is being questioned.

Why are farm fires lit?

Farmers in India light fires, in violation of laws that bar the practice, to quickly clear crop waste or stubble left behind after paddy is harvested so that they can plant wheat.

Although the government offers subsidies on harvesting machines that can replace this method, demand has been low due to their high price or long wait for those looking to rent them.

How does India monitor farm fires?

Officials say satellites are the only way to monitor farm fires since they capture a much larger area.

India's space agency procures data from two orbiting NASA satellites that pass over the northern breadbasket states of Punjab and Haryana, among others, twice a day – around 10.30 am (0500 GMT) and 1.30 pm (0800 GMT).

This is then shared with the government to count farm fires.

Is this method foolproof?

NASA satellites only capture instances of farm fires during the limited period when they are passing over the region, which takes them 90 seconds. They therefore only capture any blaze visible at that time or lit in the previous half hour.

Experts suspect that farmers have, over time, become aware of this surveillance period and shifted the time of burning their crop waste to evade the NASA satellites.

Why is it being questioned now?

An adviser to the Supreme Court, which is monitoring pollution management by authorities in the national capital region, this week said there was a discrepancy in the farm fire data obtained from orbiting and stationary satellites.

Citing information given by a senior scientist at NASA Goddard Space Flight Center, she said that a South Korean stationary satellite had captured farm fires at 4.20 pm (1050 GMT), well after the NASA satellites had moved on.

What is the alternative?

The court had directed the federal government to procure data of farm fires from stationary satellites as an alternative but the government said this data is "sub-optimal". Instead, India's space agency is working on a system to count farm fires by studying the burnt area they leave behind.

Relevance: GS Prelims & Mains Paper III; Environment

Source: The Hindu

18. Why did the Supreme Court pull up the the Commission for Air Quality Management?

Introduction

"HAS NOT PERFORMED": SC BLASTS DELHI AIR QUALITY PANEL



Air pollution in Delhi has been in the 'severe' and 'severe plus' category for the most part of the last 10 days. This week, the Supreme Court pulled up the Commission for Air Quality Management (CAQM), the government's monitoring agency, on its inadequate pollution control response.

What is the CAQM?

The CAQM in the National Capital Region (NCR) and adjoining areas came into existence through an ordinance in 2020, which was later replaced by an Act of Parliament in 2021. The CAQM was set up for better coordination, research, identification and resolution of problems surrounding air quality and connected issues. It initially had 15 members, comprising officials, past and present, of the environment ministry and other departments of the Union government, as well as officials of various State governments, and representatives from NGOs and other agencies. The CAQM is now headed by Rajesh Verma and there are 27 members.

The CAQM replaced the EPCA (Environmental Pollution (Prevention and Control) Authority), which was formed in 1998 by the Supreme Court. However, the EPCA was not backed by a statute and experts had raised the issue that it lacked the teeth to act against authorities which did not follow its orders. Despite that drawback, it was under the EPCA that many of the measures being followed by the CAQM started, including the Graded Response Action Plan or GRAP, a list of temporary emergency measures to control air pollution.

What are the powers of CAQM?

Under the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021, the CAQM was given the power to take all measures, issue directions and entertain complaints, as it deems necessary, for the purpose of protecting and improving the quality of air in the NCR and adjoining areas. Under Section 14 of the Act, the CAQM can initiate stringent actions against officers for not following its orders.

Why did the SC pull up the CAQM?

Over the years, the Supreme Court which has been hearing an ongoing case on air pollution, has pulled up different governments and agencies for their laxity. On September 27, Justice A.S. Oka and Justice Augustine George Masih orally observed about CAQM: "Like pollution, your directions are in the air." The court was referring to various stakeholders not following the CAQM's orders despite specific provisions under the 2021 Act. "There has been total non-compliance of the Act. Please show us a single direction issued to any stakeholder under the Act... We are of the view that though the Commission has taken steps, it needs to be more active. The Commission must ensure that its efforts and directions issued actually translate into reducing the problem of pollution," the Bench observed. On November 18, the Supreme Court slammed the CAQM for delayed action while directing stringent curbs under Stage IV

of the GRAP and noted that rather than taking pre-emptive action to contain air pollution, it waited in vain for the air to improve. Stage IV is the highest level of restrictions under GRAP, and according to the CAQM's rules, it is supposed to be implemented when the air quality category is likely to fall to 'severe plus', and is likely to remain in that level for three or more days. The court pulled up the CAQM for delaying implementation of curbs though the AQI had slipped to the 'severe plus' category.

Is the CAQM to blame for Delhi's pollution?

Though the CAQM makes plans and coordinates with different agencies, it is the agencies that have to implement them on the ground.

An official of the CAQM said the commission has improved coordination and planning. "For example, though the paddy stubble burning, which is a source of severe pollution, happens in October-November, we start meeting State officials from February and continue talks till the season is over," the member said. The CAQM had also coordinated with Punjab and Haryana to prepare action plans for controlling stubble burning in 2022 and it is updated every year.

About challenges that the commission faces, the official said, "Over the years, though we were looking at different sources of pollution and trying to control them, our main focus was on controlling stubble burning. But from now onwards, we will try to focus on multiple areas. We will be putting more energy and time on controlling dust and vehicular pollution too."

Anumita Roychowdhury, executive director, Centre for Science and Environment, said that the decision to impose GRAP should be taken proactively by the CAQM. Pollution forecasting methods have to be more accurate, she added.

Relevance: GS Prelims & Mains Paper III; Environment

Source: The Hindu

19. Why is there a row over climate finance?

Introduction



The 29th edition of the Conference of Parties (COP), arguably the most important of the UN's climate conferences, was scheduled to end on November 22, after 11 days of negotiations, and take a collective step forward in addressing rising carbon emissions. However, deliberations are expected to carry on beyond

the deadline with several sticking points outstanding.

What is the significance of COP29?

Going into the talks, developing countries had stated that at least a trillion dollars per year from 2025-35 would be necessary to meet emission targets. This was seen to be the New Collective Quantified Goal (NCQG) on climate finance which refers to money that will be given to developing countries by developed countries to help the former meet their goals to transition away from the continued use of fossil fuels and curb greenhouse gas emissions. Developing countries have been repeatedly saying that the figure should be “trillions of dollars.” To this end, developed countries have mobilised and transferred \$115 billion in 2021-22 — a controversial clause that has yet to be resolved in the universal agreement — but per the Paris Agreement, a new target higher than \$100 billion must be agreed upon by 2025. The talks in Baku were expected to conclusively agree upon a number but there continues to be a sharp split between developed and developing countries on the quantum and other basic aspects of what this NCQG should look like.

What do developing countries want?

This block of countries include China, India and the Group of 77 countries. There are also other coalitions such as the Like Minded Developing Countries (LMDC), Least Developing Countries (LDC), Small Island Developing Countries (SIDS) etc. Nearly all developing countries fall into one or multiple groupings and while they have differences, they are largely agreed on the point that it is the developed countries that should pay the bulk of climate finance.

More importantly, they specified that this money had to be provided not only to help countries meet their Nationally Determined Contributions (NDC) but also buffer against existing threats of climate change, and make good for climate damage already wrought. The NDCs are targeted, voluntary plans by all countries to reduce carbon emissions by certain quantities until 2030. The NCQG, the developing countries say, should also reflect contributions by developed countries on the basis of their historical contribution to existing carbon concentrations in the atmosphere as well as their per capita GDP. To put this in perspective, it is important to note that even if all countries fulfilled their stated voluntary commitments, it would as of now only translate to a 2% cut, and this year — the latest scientific assessments suggest — carbon emissions will likely increase 0.8% over 2023.

What does the developed world say?

However developed countries, led by the European Union, say these demands are unreasonably high. They aver that “all actors” (read countries) should collectively work to hike up climate finance to \$1.3 trillion per year by 2035. While agreeing that they must “take the lead” they have only set a goal of \$250-300 billion by 2035 per year. Moreover this would consist of a “variety of sources,” including “public and private, bilateral and multilateral, and alternative sources.”

This suggests that another major demand of the developing world, of ensuring most of the money is in the form of grants or low-cost loans, remains unmet.

Have any concrete agreements been made?

A week before the conference began, China had petitioned the Presidency of COP29 to discuss "climate-change related unilateral restrictive trade measures" at the conference. This is an unusual request as trade issues are discussed on forums such as the World Trade Organization. China proposed this as part of a grouping of countries called BASIC (Brazil, South Africa, India, China).

The petition is primarily directed at a European Union proposal called the Carbon Border Adjustment Mechanism (CBAM), which imposes a tax on products imported into the EU that don't conform to carbon-emission norms required by the Union. The CBAM is currently operating in a "transitional phase" but will come into full effect from January 1, 2026.

The first day of the conference saw an agreement on carbon markets to be supervised by the UN. Such a market would allow countries to trade carbon credits — certified reductions of carbon emissions — among themselves and whose prices are determined as a consequence of emission caps imposed by countries.

The market itself follows from a section in the Paris Agreement, called Article 6. Sub-sections within the Article spell out how countries can bilaterally trade carbon among themselves (Art 6.2) and participate in a global carbon market (6.4). Though most of the necessary nuts and bolts to make operational such a carbon market, supervised by a United Nations body, were in place since 2022, there were several niggles, particularly on ensuring that the carbon credits generated are genuine and its antecedents are transparent.

While there is criticism among environmentalist groups that enough discussions on this didn't take place, this is supposed to be a mechanism to facilitate climate finance. India has been discussing bilateral deals to trade carbon with several countries. An agreement such as the one in Baku could be a catalyst, and activate India's own carbon-trading market.

Relevance: GS Prelims & Mains Paper III; Environment

Source: The Hindu

20. Why satellite space junk may be bad news for the environment

Introduction

More than 10,000 active satellites are in orbit around the planet today. This number is estimated to shoot up to more than 100,000 by the 2030s, and possibly half a million in the decades to follow.

Most satellites, at the end of their life-cycle, fall to a fiery death through Earth's atmosphere. As they disintegrate, however, they leave all kinds of pollutants in the upper atmosphere. As the number of satellites goes up, so will this pollution. And some scientists are very worried. Polluting satellites



Daniel Murphy, an atmospheric scientist at the US National Oceanographic and Atmospheric Administration (NOAA), and others presented definitive evidence that “10% of the aerosol particles in the stratosphere contain aluminum and other metals that originated from the burn-up of satellites, and rocket stages during reentry” (‘Metals from spacecraft reentry in stratospheric aerosol particles’, 2023).

Connor Barker, an atmospheric chemist from the University College of London, and others found that emissions of aluminum and nitrogen oxides from satellite reentries significantly increased from 3.3 billion grams in 2020 to 5.6 billion grams in 2022. Also on the rise were

emissions from rocket launches, which leave pollutants such as black carbon, nitrogen oxides, carbon monoxide, aluminum oxide and a variety of chlorine gases (‘Developing inventories of by-products from satellite megaconstellation launches and disposal to determine the influence on stratospheric ozone and climate’, 2024).

Impact of satellite pollution

While pollution from burnt-up satellites high up in the atmosphere is seemingly a distant concern for humans, it might lead to ripple effects that will change the chemistry of the atmosphere. This is not good news. Life on Earth has evolved over billions of years to adjust to the planet’s specific environment, and even miniscule changes could trigger massive chaos on the planet.

Scientists are particularly concerned about the impact of this pollution on the ozone layer in Earth’s stratosphere. This layer absorbs up to 99% of ultraviolet rays from the Sun, which would otherwise harm living organisms on Earth’s surface.

But pollutants from burnt-up spacecraft are likely already harming it. Aluminum oxide, for instance, is a known catalyst for ozone depletion. This would be major new threat to the ozone layer especially in the light of the success of the Montreal Protocol of 1987, which banned production and emissions of known ozone-destroying chemicals such as chlorofluorocarbons (CFCs), previously used as a common refrigerant.

Murphy also notes many other ways in which spacecraft pollutants might impact the atmospheric composition. He told Science News: “Soot emitted from rocket engines absorbs solar energy, which can warm the atmosphere. Copper and other metals released during the incineration of spacecraft wiring and alloys are known to be powerful catalysts for chemical reactions in the atmosphere. Among other things, those metals could promote the creation of the tiny particles that act as the seeds of clouds.”

21. Dismantling of climate talks

Introduction



The COP29 climate meeting in Baku ended in disappointment last week. On the main issue of finance, developed countries agreed to mobilise only \$300 billion for the developing nations every year, a three-times increase over their current mandate of \$100 billion but way short of at least \$1 trillion that all assessments said was required. Even this nominal scale-up — the needs already run in trillions of dollars — is

not supposed to happen immediately but only from 2035.

This is not the first time that the annual climate conference has produced a disappointing outcome. Each one of them in the last 15 years has delivered much below expectations. As a result, the discussions and outcomes of these summits have been almost completely delinked from the requirements of meeting the temperature targets mentioned in the 2015 Paris Agreement. While science says that the world needs to cut its emissions by at least 43% by 2030 from 2019 levels, all assessments of current actions estimate that global emissions, even in the best-case scenarios, would be barely 2% down by that time.

The underwhelming deal on climate finance reached in Baku might just be the beginning of the unravelling of the climate talks.

Inherently unstable

It is not a surprise that the current international arrangement on climate change has turned out to be this ineffective. It is the only major multilateral system which is completely aligned against the rich and powerful nations. Usually, the rules of any international forum reflect the prevailing power balance, and are mostly in favour of the powerful, as they are the ones who decide on the rules. The climate change architecture, as represented by the 1994 UN Framework Convention on Climate Change (UNFCCC), goes completely against this norm.

In this system, the rich and the powerful — a group of about 40 including the United States and most of Europe — are the main culprits for causing climate change, and the rules are stacked heavily against them. They have been made solely responsible for cutting their greenhouse gas (GHG) emissions, and also for providing money and technologies to the developing countries to help them fight climate change.

These responsibilities were fixed largely in line with the “polluter pays” principle. Since the developed countries were mainly responsible for emitting GHGs over the last 150 years, it was only fitting that they be asked to take responsibility for cleaning it up.

However, equity and fairness are rarely the main drivers of international relations. How this climate structure was allowed to be built up, with the rich and developed countries fully participating in the process, is an interesting and intriguing question that has not yet been settled definitively.

It was not before the 1997 Kyoto Protocol, the precursor to the Paris Agreement, was finalised that the developed world realised that this system could hurt their interests and disrupt the prevailing global power balance. The Kyoto Protocol took forward the principles enshrined in the UNFCCC and assigned specific targets to each of the developed nations in accordance with their “guilt”. The targets were to be fulfilled in a specific time frame, failing which they could be penalised.

It is probably the only instance of such an inherently unstable multilateral system which is so completely at odds with the global power structure being created.

Dismantling begins

The efforts to dismantle the system began immediately after the Kyoto Protocol came into effect in 2005 after the requisite number of ratifications. Although the US played a key role in finalising the Kyoto Protocol, the country never ratified it.

The idea was to tear down the structure brick by brick, not in one go. The crucial differentiation between the developed and developing countries in the assignment of climate responsibilities was repeatedly targeted. This was done to ensure that the failure to meet targets could not be blamed only on the developed nations and instead be shared with everyone.

The first attempt to replace the Kyoto Protocol with a new agreement was made in Copenhagen in 2009 but it failed. Developed countries worked for another six years and succeeded in Paris. But even while it was in force, till 2020, Kyoto Protocol targets were completely ignored by all the developed countries. Many of them walked out of the Kyoto Protocol.

The Paris Agreement made fundamental changes to the way climate responsibilities were structured till then. Emission cuts were not the sole responsibility of the developed countries any longer. Everyone had to “contribute” though in a “nationally-determined” manner. There were no assigned targets for developed countries, their emission cuts also had to be “nationally-determined”, meaning decided by themselves.

Emission cuts inadequate

As a result, emission cuts have been nowhere close to what is required. The European Union is expected to cut its emissions by around 60% from 2019 levels by 2030 but that is about it. Donald Trump is the favourite whipping boy on climate change issue, but even without him

the US has been the biggest laggard. Despite the much-touted Inflation Reduction Act, brought in by Joe Biden administration, the US is only aiming for a 50-52% cut by 2030 from 2005 levels, which translates to about 45% from 2019 levels.

If the world as a whole has to reduce its emissions by 43% by 2030 from 2019 levels, equity and fairness demand that the US and EU should have been aiming for about 80-90% reductions.

The sharp distinction between developed and developing countries on emission cuts was broken by the Paris Agreement. But developed countries were still solely responsible for mobilising finance and transfer of clean energy technologies. These are also getting targeted.

Dilution of finance responsibility

The developed countries argue that the scale of finance requirements has increased manifold, and many other countries have grown rich in the last two decades, so they must also be asked to contribute to climate finance. The first attempt to expand the contributor base happened in Paris itself but did not succeed.

In Baku this year, expansion of contributor base was one of the core issues being discussed as part of the finance negotiations, and some criteria for roping in more countries were suggested. But the developing countries managed to thwart it again. Essentially, China, which was a target of the expansion effort, put its foot down.

In the bargain, the developed countries limited the quantum of climate finance to be raised by them — \$300 billion and no more.

The dismantling of the international climate structure has been a continuous process. The dilutions on emissions cuts and finance are just two examples. Erosion has been across the board, leading to a steady decline in trust of the developing countries.

But it is still the only multilateral forum where tiny countries like Tuvalu or Marshall Islands have a voice, and an influential one at that. These countries also benefit from some climate money flowing to them. It is not enough but better than nothing at all.

The climate talks would possibly continue to have some limited utility for some more time, but its effectiveness as a global forum to fight climate change is severely diminished.

Relevance: GS Prelims & Mains Paper III; Environment

Source: PIB

22. All about the central government scheme to promote natural farming

Introduction

CABINET DECISION
25TH NOVEMBER, 2024

National Mission on Natural Farming

Cabinet approves National Mission on Natural Farming (NMNF) as a standalone Centrally Sponsored Scheme under the Ministry of Agriculture & Farmers' Welfare



Salient features

- Mission to promote natural farming in mission mode across the country
- Total outlay of **Rs.2481 crore** (Government of India share – **Rs.1584 crore** and States' share – **Rs.897 crore**)
- To be implemented in **15,000 clusters in Gram Panchayats**, which are willing, & reach **1 crore farmers** and **initiate Natural Farming in 7.5 lakh Ha area**
- Preference to be given to areas having prevalence of practising **NF farmers, SRLM / PACS / FPOs, etc**

The Union Cabinet recently approved the launch of the National Mission on Natural Farming (NMNF) as a standalone Centrally Sponsored Scheme under the Ministry of Agriculture & Farmers' Welfare. The NMNF aims to promote natural farming in mission mode across the country.

What is natural farming?

The Agriculture Ministry defines natural farming as a "chemical-free" farming system that only uses inputs produced using livestock and plant resources. The ministry plans to implement this first across the districts with high fertiliser consumption.

Is the NMNF a new initiative?

No. The proposed NMNF is an

improvement of the Bhartiya Prakritik Krishi Paddhti (BPKP) launched by the NDA government in its second term (2019-24). The initiative was launched under an umbrella scheme of Paramparagat Krishi Vikas Yojna (PKVY). The Centre also promoted natural farming in a five-kilometre belt along the Ganga River under the Namami Gange scheme in the financial year 2022-23.

The NDA's return to power in June after the Lok Sabha elections saw a renewed focus on promoting natural farming, with the government launching the NMNF in the first 100 days. The government decided to upscale the experience gained from the BPKP into a mission mode through the NMNF.

In her Budget Speech on July 23, Finance Minister Nirmala Sitharaman announced a plan to initiate one crore farmers countrywide into natural farming in the next two years. "In the next two years, 1 crore farmers across the country will be initiated into natural farming supported by certification and branding. Implementation will be through scientific institutions and willing gram panchayats. 10,000 need-based bio-input resource centres will be established," she announced.

In his Independence Day speech, Prime Minister Narendra Modi expressed his gratitude to the farmers who had embraced natural farming for taking on "the responsibility of environmental conservation."

How much area has been covered under natural farming so far?

An overall area of 22 lakh hectares has been brought under natural farming to date, with 34 lakh farmers engaged in the practice. This includes 4 lakh hectares under BPKP and 88,000 hectares under Namami Gange. About 17 lakh hectares are covered under various state government initiatives to promote natural farming.

The NMNF mission aims to bring an additional 7.5 lakh hectares of area under natural farming. According to the statement, "In the next two years, NMNF will be implemented in 15,000 clusters in Gram Panchayats, which are willing, & reach 1 crore farmers and initiate Natural Farming (NF) in 7.5 lakh Ha area. Preference will be given to areas having prevalence of practising NF farmers, SRLM / PACS / FPOs, etc. Further, need-based 10,000 Bio-input Resource Centres (BRCs) will be set-up to provide easy availability and accessibility to ready-to-use NF inputs for farmers.

How is the mission different from the earlier interventions?

The natural farming mission is different from the earlier initiatives in several ways. First, it has a higher budgetary outlay. Second, it targets over one crore farmers. Moreover, it aims to create an ecosystem for sustainable natural farming in the country. It also aims to establish "scientifically supported common standards and easy farmer friendly certification procedures for naturally grown chemical free produce." It also envisages a single national brand for naturally grown chemical-free produce.

According to an official statement, the scheme has a total outlay of Rs. 2,481 crore of which the central government will contribute Rs.1584 crore and the states Rs.897 crore) till the 15th Finance Commission (2025-26).

"Under NMNF, around 2000 NF Model Demonstration Farms shall be established at Krishi Vigyan Kendras (KVKs), Agricultural Universities (AUs) and farmers' fields, and shall be supported by experienced and trained Farmer Master Trainers. The willing farmers will be trained in Model Demonstration Farms on the NF package of practices, preparation of NF inputs, etc. near their villages in KVKs, AUs and practising NF farmers' fields. 18.75 lakh trained willing farmers will prepare inputs like Jeevamrit, Beejamrit, etc. by using their livestock or procure from BRCs. 30,000 Krishi Sakhis/ CRPs will be deployed for awareness generation, mobilisation and handholding of willing farmers in the clusters," it said.

Why a mission on natural farming?

The mission to promote natural farming aims to combat the excessive use of fertilisers. According to sources, the Agriculture Ministry has identified 228 districts across 16 states—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand and West Bengal—with input (fertiliser) sales above the all-India average (138 kg/hectare) during 2022-23. In contrast, the number of farmers practising natural farming was minimal in these districts. Thus, the ministry will focus on districts with high chemical fertiliser sales (above 200 kg/ hectares), apart from the Namami Gange region (5 kg area) along the main stem of river Ganga.

According to the official statement, "Natural Farming practices will help farmers to reduce input cost of cultivation and dependency on externally purchased inputs while rejuvenating soil health, fertility & quality and building resilience to climate risks like waterlogging, flood, drought, etc."

"These practices also reduce health risks from exposure to fertilisers, pesticides, etc. and provide healthy & nutritious food for the farmers' family. Further, through Natural Farming, a healthy Mother Earth is bequeathed to the future generations. Through improvement of soil carbon content & water use efficiency, there is an increase in soil microorganisms and biodiversity in NF," it said.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

1. Discovery of the First “Black Hole Triple” System

Introduction



For the first time, scientists have discovered a black hole triple system, a rare arrangement featuring a black hole with two orbiting stars. Named V404 Cygni, the system lies approximately 8,000 light years from Earth in the constellation of Cygnus. This discovery provides fresh insights into the formation of black holes and hints at the possibility of more complex black hole systems.

What Is a Black Hole?

A black hole is a region in space where gravity is so strong that nothing—not even light—can escape. Black holes typically form when massive stars exhaust their fuel and undergo a supernova, a powerful explosion that leaves behind a dense core.

Structure of the Black Hole Triple System

Most black holes observed in space are in binary systems, which include a black hole and a single star or another black hole. In the case of V404 Cygni:

- **The Black Hole:** V404 Cygni, about nine times the mass of our Sun.
- **The First Star:** A small star orbiting close to the black hole every 6.5 days, which the black hole is actively consuming.
- **The Second Star:** A distant star orbiting the black hole over an astonishing 70,000 years.

How Was It Discovered?

Researchers from Caltech and MIT discovered this triple system while analyzing telescope data. The presence of two stars orbiting the black hole suggests they are linked through weak gravitational forces, forming a stable triple system rather than a random alignment.

Formation: “Failed Supernova” Hypothesis

Scientists suggest that the black hole in V404 Cygni formed through a “failed supernova.” Instead of exploding, the original star likely underwent a “direct collapse,” where it simply imploded due to gravity without shedding any material. This gentler process allowed the outer stars to remain in orbit around the black hole.

Implications of the Black Hole Triple System

1. Reconsidering Black Hole Formation: This discovery supports the idea that some black holes may form without supernovas, preserving nearby stars.

2. Potential for Hidden Triple Systems: Since the black hole is consuming the inner star, some binary systems observed today could have initially been triple systems.

In summary, the V404 Cygni black hole triple system sheds light on alternate ways black holes can form and evolve, possibly revealing a hidden complexity in black hole systems across the universe.

Relevance: GS Prelims; Science & Technology

Source: Indian Express

2. Elephant Deaths Linked to Kodo Millet Consumption

Incident Overview



In Madhya Pradesh's Bandhavgarh Tiger Reserve, ten wild elephants from a herd of thirteen died over three days. Authorities, led by Principal Chief Conservator of Forests (Wildlife) Vijay N Ambade, suspect "mycotoxins associated with kodo millet" as the cause.

What is Kodo Millet?

Kodo millet, also known as Kodra or Varagu in India, is a resilient crop native to India and widely cultivated in tropical and subtropical regions like Pakistan, the Philippines, Indonesia, and West Africa. Commonly grown in Madhya Pradesh, it is a staple food for economically vulnerable populations due to its drought-resistant properties, rich nutrient profile, and easy storage.

Health Benefits of Kodo Millet

Kodo millet is valued for being gluten-free, high in vitamins, minerals, and antioxidants, and possibly anti-carcinogenic. It is rich in dietary fiber, which aids metabolic and digestive health by helping to regulate glucose absorption and cholesterol levels.

Kodo Millet Poisoning History

The first documented case of kodo millet poisoning dates back to 1922, with human cases and an affected dog in Uttar Pradesh. In 1983, researchers recorded the first case of elephant deaths from kodo millet ingestion. Cyclopiazonic acid (CPA), a mycotoxin, was later identified as the main toxin causing kodo millet poisoning.

How Kodo Millet Becomes Toxic

Kodo millet becomes susceptible to fungal infections in humid conditions, especially when rain disrupts maturing or harvesting. CPA, a mycotoxin produced by these fungi, can lead to severe poisoning, locally referred to as "Matawna Kodoo." Once infected, the millet cannot be detoxified even with advanced processing methods.

Impact of Toxic Grain on Animals

Kodo millet poisoning can severely affect animals' nervous and cardiovascular systems, with symptoms like vomiting, tremors, rapid pulse, and unconsciousness. Studies also show it can lead to gastrointestinal issues and increase oxidative stress, which may damage internal organs.

Potential Solutions to Kodo Toxicity

Researchers recommend biocontrol measures, such as introducing non-toxic fungal strains to fields. Good agricultural practices, including dry storage and limiting moisture exposure, can also help. Infected grains should be discarded to prevent the spread of toxins.

Recent Cases and Detection Methods

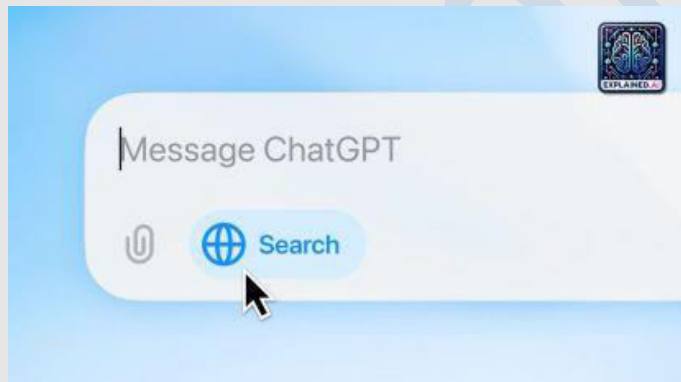
In 2022, one elephant in Madhya Pradesh died after ingesting toxic kodo millet. Human poisoning cases are rare and treatable with prompt intervention. For safety, advanced detection methods like chromatography and rapid assays are used to identify toxins in millets, but these can be costly and time-consuming.

Relevance: GS Prelims; Science & Technology

Source: Indian Express

3. ChatGPT is now a search engine: What does it mean for the future of AI-powered search?

Introduction



The latest version of AI chatbot ChatGPT has the capability to search the web, OpenAI announced last week. This means that the chatbot can now retrieve and deliver information from across the internet in real time, including top headlines, stock prices, and sports scores. Currently, the feature is only limited to paid subscribers.

It has arrived at a time when tech bigwigs such as Meta announced that it was working on its proprietary AI search engine to be integrated with its social media apps, and when AI-powered search by companies like Google, Perplexity, Microsoft Copilot, etc., are thriving.

How do we search for information on the web?

Before the advent of Large Language Models (LLMs) such as OpenAI's GPT family, search engines were powered by keyword-based algorithms. For instance, when a user searched for "best shoe store", the search engine would go through a vast library of web pages that had been identified or categorised based on these keywords, and then show the most relevant pages.

Although this is efficient in most scenarios, it is restricted to the literal search and often misses the nuances and complexities of human language. For instance, a Google search of 'Llama' will show you both Meta's LLM and the animal Llama. This is also based on which of the descriptions appears frequently on its indexed pages. Here, the traditional search engine is simply matching words and is not really aware of what the user may be seeking.

Since traditional search engines are inept at understanding the relations between concepts or how users ask questions, they often fail to offer the best answer when prompted with more complex and conversational queries.

LLMs changed this and introduced the era of a more sophisticated, contextual search based on the user's intent.

What sets AI search apart?

AI-powered search is much beyond matching keywords as it uses natural language processing (NLP), machine learning, and semantic understanding (the ability to comprehend the meaning and context of words). With machine learning, search engines can now analyse user behaviour, learn from their search habits, and refine their outputs over time.

NLP allows the engine to understand language closer to human comprehension, essentially allowing it to grasp context and also the intent of words. For example, if one searches for "Llama," the AI-powered search engine will analyse their older searches and other patterns to see if they are interested in the animal or Meta's LLM. In case one recently searched for "animals from camelids family", the AI would recognise that the new search is about the animal and show relevant results.

In case a user asks a more complex query such as "What are the health benefits of pistachio", the search would showcase a wide range of sources like research papers, medical journals, studies on nutrition, and health blogs to give a detailed answer. The ability to come up with contextual and cross-domain analysis of various topics is one of the major advantages of AI-powered search over traditional search.

AI-powered search also continuously evolves based on its interactions. The AI upgrades and learns each time a user clicks on a certain result, offers feedback, spends time on a page, etc. This continuous learning enables AI to come up with highly personalised search experiences for users.

So will AI replace search engines?

Not really. Google, Bing, DuckDuckGo, and even Chinese search Baidu have all introduced generative AI models and are integrating them into their search products. AI will most likely enhance the capabilities of search engines.

Most search engines, as of today, use AI to understand complex queries. They consider aspects such as location, and previous searches, to offer personalised results. ChatGPT and Gemini

employ conversational interfaces that allow users to engage with search engines in a natural conversation. Some of these search engines also support multimodal interactions, meaning users can do image and voice searches.

Why are tech giants rushing to build AI-powered search engines?

Tech companies want to increase their user base and revenue streams by building proprietary AI search engines.

AI-powered search tools allow companies to retain their user base in their ecosystem. For instance, if Meta integrates its search engine into Facebook and Instagram, it could increase user engagement by keeping them in the ecosystem. These users would no longer need to go on a conventional search engine to look up information while interacting on any Meta platform.

With increased engagement there are more possibilities for revenue generation. Google, Meta, and OpenAI can use their AI-powered search to push relevant ads, bringing new possibilities for ad revenues.

Proprietary AI search engines would also let tech companies collect user data directly, offering them a reservoir of user interaction insights. This can help them further personalise user experience, support AI training, and improve the relevance of future responses.

Even though there are advantages for companies, AI-powered search engines are not without challenges. Ethical considerations are crucial as companies would be required to do more to manage AI biases, and misinformation to build trust among users.

Relevance: GS Prelims; Science & Technology

Source: Indian Express

4. With DRDO successfully testing India's first long-range hypersonic missile, all you need to know about the weapon

Introduction



India's Defence Research and Development Organisation (DRDO) successfully flight-tested a long-range hypersonic missile off the coast of Odisha recently.

According to an official press release, the missile can carry various payloads for ranges greater than 1,500 km for the Armed Forces. It has been indigenously developed by

laboratories of the Dr APJ Abdul Kalam Missile Complex, Hyderabad, along with various other DRDO labs and industry partners.

What is a hypersonic missile?

The term "Hypersonic" refers to a speed at least five times the speed of sound (also called Mach-5). This comes down to around a mile per second. Another key feature of such missiles is manoeuvrability, setting them apart from a ballistic missile that follows a set course or trajectory.

The two types of hypersonic weapons systems are Hypersonic Glide Vehicles (HGV) and Hypersonic Cruise Missiles (HCM). The HGVs are launched from a rocket before gliding to the intended target while HCMs are powered by air-breathing high-speed engines or 'scramjets' after acquiring their target.

What are the advantages of hypersonic missiles?

According to the website of defence equipment manufacturer Lockheed Martin, hypersonic systems are a "game-changer" for national security.

A 2023 UK Parliament research briefing on the weapon said, "They fly at lower altitudes than ballistic missiles, which means that they may be harder to track at long distances with some surface-based sensors, such as certain radar."

Are there any disadvantages or challenges to hypersonic missiles?

The Lockheed Martin website says creating a system that is so fast means overcoming several difficult engineering and physics challenges. These include heat generated due to friction and air resistance. The high speed also means it must be operated with "an incredible degree" of precise manoeuvrability.

Basic operations, like communications, also become a significant challenge during hypersonic flight. A system "must maintain connectivity to operators and decision-makers through communications and sensor systems," it added. They are also more costly to develop in comparison to ballistic missiles.

Where do countries stand on developing hypersonic missiles?

Russia and China are believed to be ahead in developing hypersonic missiles while the US is developing a range of such weapons under an ambitious programme. In May this year, the US Army awarded Lockheed Martin a \$756 million contract to deliver additional capability for the nation's ground-based hypersonic weapon system, the Long-Range Hypersonic Weapon (LRHW).

In 2022, the Russian Ministry of Defence announced it had used a hypersonic missile for the first time in the ongoing conflict with Ukraine.

Several other countries, including France, Germany, Australia, Japan, Iran, and Israel, are also pursuing projects to develop hypersonic missile systems.

Relevance: GS Prelims & Mains Paper III; Science & Technology

Source: Indian Express

5. How scientists developed pills that can replace injections

Introduction

A team of researchers has developed ingestible capsules that release a burst of drugs directly inside the stomach or other parts of the digestive system. These capsules can offer an alternative method to deliver drugs such as insulin that, thus far, are typically administered via injections. To develop them, the researchers took inspiration from the way cephalopods like squids and cuttlefish use jet propulsion mechanisms to move underwater, and shoot ink.

The details about development have been mentioned in the study, 'Cephalopod-inspired jetting devices for gastrointestinal drug delivery', published in the journal *Nature* last week. The research has been carried out by scientists from the Massachusetts Institute of Technology (MIT), Brigham and Women's Hospital, and drug manufacturer Novo Nordisk.

Why are these capsules significant?

An MIT led research team has developed a drug capsule that could be used to deliver oral doses of insulin. The capsule contains a small needle made of compressed insulin, which is injected after the capsule reaches the stomach. By testing in animals, the researchers showed that they could deliver enough insulin to lower blood sugar to levels compared to those produced by injections given through skin. They also demonstrated that the device can be adapted to

deliver other protein drugs. "We are really hopeful that this new type of capsule could someday help diabetic patients and perhaps anyone who requires therapies that can now only be given by injection or infusion", claim MIT seniors.

Injections are used to administer hormones, vaccines, antibodies, or cancer treatments. They are used instead of a pill as these drugs are usually made of larger biological molecules. Once swallowed, large molecules are often quickly destroyed by digestive enzymes or the liver, limiting their efficacy and increasing the likelihood of potential side effects.

Despite this advantage, scientists have been trying to find an alternative to injections for a long time. That is because injections can lead to infection, skin irritation, and other side effects. They can also cause discomfort to patients. Pills, on the other hand, are much easier to take compared to injections.

The new capsules are a significant leap forward in oral drug delivery of macromolecule drugs. While many approaches for oral drug delivery have been attempted in the past, they tend to be poorly efficient in achieving high bioavailability [a drug's ability to be absorbed and used by the body. Here, the researchers demonstrate the ability to deliver bioavailability in animal models with high efficiency.

How were the capsules developed?

The researchers looked at cephalopods such as squids and octopi to develop the capsules. These animals can adjust the pressure and direction of their ink jets. The researchers used the same idea to distribute drugs in the gastrointestinal (GI) tract. By jetting medication directly into tissue, they could ensure that more medication is absorbed before the body breaks it down.

The researchers mimicked the jetting action of squids and octopi in two ways. They compressed carbon dioxide or tightly coiled springs to generate the force needed to propel liquid drugs out of the capsule. The gas or spring is kept in a compressed state by a carbohydrate trigger, which is designed to dissolve when exposed to humidity or an acidic environment such as the stomach. When the trigger dissolves, the gas or spring is allowed to expand, propelling a jet of drugs out of the capsule.

Relevance: GS Prelims & Mains Paper III; Science & Technology

Source: Indian Express

6. Significance of European solar mission, which ISRO will launch

Overview

The Indian Space Research Organisation (ISRO) will launch the European Space Agency's Proba-3 mission on its PSLV rocket to study the solar corona, the outermost and hottest part of the Sun's atmosphere, from Sriharikota on December 4.

The mission will attempt the first-ever "precision formation flying", where two satellites will fly together and maintain a fixed configuration in space.

This is the latest solar mission in ESA's Proba suite of missions. Its predecessors Proba-1 (also launched by ISRO) and Proba-2 were launched in 2001 and 2009, respectively. Teams of scientists from Spain, Belgium, Poland, Italy and Switzerland have worked on Proba-3.



What is Proba-3?

Developed at an estimated cost of 200 million euros, Proba-3 has an expected mission life of two years. It will be launched into a highly elliptical orbit measuring around 600 x 60,530 km and have an orbital period of 19.7 hours.

The mission is designed with two satellites that will be launched together, separate from each other and then fly in tandem. They will then form a solar coronagraph, an instrument that helps block out the bright light emitted by the Sun to reveal the objects and atmosphere around it.

What will Proba-3 study?

Due to the corona's temperature, going up to 2 million degrees Fahrenheit, it is difficult for any instrument to observe it closely. However, it is important for scientific study, as all space weather and its associated turbulences — solar storms, solar winds, etc. — originate from the corona.

These phenomena influence space weather and can potentially interfere with the smooth operations of all satellite-based communications, navigation, and power grids on Earth. To study these, Proba-3 will have three instruments onboard:

- * The Association of Spacecraft for Polarimetric and Imaging Investigation of the Corona of the Sun (ASPIICS) or the coronagraph. Its field of view is between the Sun's outer and inner corona, a circular belt normally observable during solar eclipse events. The instrument has a 1.4-metre diameter occulting disk mounted on it, to block the Sun's light and facilitate a close-up view of this belt.
- * The Digital Absolute Radiometer (DARA) will maintain a continuous measurement of the Sun's total energy output, known as the total solar irradiance.
- * The 3D Energetic Electron Spectrometer (3DEES) will measure electron fluxes as it passes through Earth's radiation belts, providing data for space weather studies.

Why is Proba-3 unique?

The two satellites — Occulter Spacecraft (weighing 200 kg) and the Coronagraph Spacecraft (weighing 340 kg) — will mimic a natural solar eclipse. They will manoeuvre precisely in Earth's orbit so that one satellite casts a shadow onto the other.

A naturally occurring solar eclipse allows solar physicists to observe and study the Sun's corona for 10 minutes, across an average of about 1.5 eclipse events per year. Proba-3 will give six hours, equivalent to 50 such events annually, which will help deepen understanding of the Sun's corona like never before.

Both the Occulter and the Coronagraph will face the Sun at all times. They will maintain a formation of a few millimetres and then move to a position where they will be 150 metres for six hours at a time.

One satellite will act as a viewing telescope, kept at the centre of a shadow cast by the other satellite positioned 150 metres away. This positioning will facilitate observing the Sun's corona and will be autonomously achieved through precise flight formation.

If done successfully, the Occulter will create an artificial yet stable eclipse, by masking large parts of the Sun. As a result, the Sun's blinding light will get blocked and only the solar corona will be visible to the coronagraph, which will photograph and facilitate studies of the lesser-known features.

How might India benefit?

Proba-3 is being called ESA's technology demonstration mission. The fact that ISRO has been designated to launch the mission demonstrates India's reliable space launch facilities and growing space capabilities. A cost-effective launch is also one of the highlights of the mission.

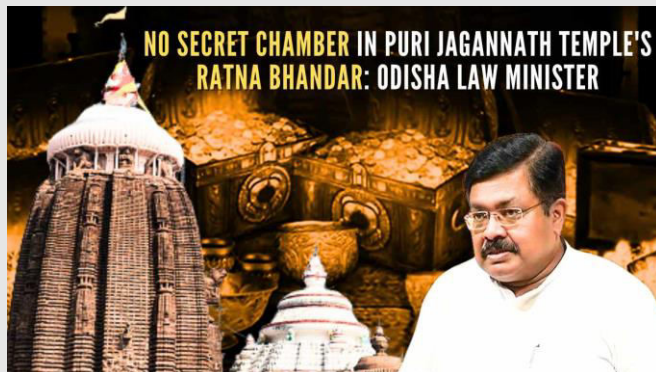
There is a strong possibility that the Indian solar physicist community will get exclusive access to the Proba-3 data. A few Indian solar physicists have also been involved in conceptualising the scientific goals of this mission along with their Belgian counterparts. Soon after the launch, India plans to host a meeting with the ESA's Proba-3 team to explore opportunities for using data from Aditya L1, India's first mission to the Sun (launched in 2023) and Proba-3 for collaborative research. This would allow Indians to work towards and contribute to newer scientific advancements related to the Sun.

Relevance: GS Prelims & Mains Paper III; Science & Technology

Source: Indian Express

1. 'No secret chamber found inside Jagannath temple': why the claim was made, how ASI surveyed shrine

Introduction



Odisha's law minister Prithviraj Harichandan recently clarified that there was no secret chamber inside the treasury of the Jagannath Temple in Puri.

The minister's announcement came after a survey of the Ratna Bhandar (treasure trove) of the temple, carried out by senior scientists of the Archaeological Survey of India (ASI) and the National

Geophysical Research Institute (NGRI) in mid-September. The committee is expected to submit its final report to the temple administration soon.

Why were the claims of a 'secret chamber' in the temple being raised, and how was the survey carried out?

Myth of the hidden chamber in Jagannath temple

Among the many myths about the Ratna Bhandar of the shrine is the existence of a secret tunnel or chamber. Despite no documentary evidence, stories have persisted about the erstwhile kings of Puri building a hidden chamber to safeguard Lord Jagannath's jewels from invaders.

Over the past decades, the rumours gained strength as the inner chamber of the Ratna Bhandar was not opened for over 40 years.

What led to the technical survey?

As the Odisha government opened the treasury after 46 years in July this year, demands were raised from various quarters, including from the servitors of the temple, for a detailed survey to find out about the hidden chamber.

Puri's erstwhile royal Dibyasingha Deb, chairman of the shrine's managing committee, stated that the ASI would use a highly sophisticated instrument to do laser-scanning and clear the air about the chamber.

Though such a technical survey was not part of the standard operating procedure (SOP) prepared by the state government, the temple administration sought the government's approval considering the widespread demand. Once the approval was granted, it wrote to the ASI to carry out the survey.

What was done during the technical survey?

On September 18, a 17-member technical team led by ASI additional DG Janhwij Sharma accompanied by temple officials entered the treasury for the technical survey and inspected the chamber for around 3 hours, from 2 pm till 5pm. They conducted laser scanning, a process to map and visualise the 3D geometry of a structure. The team also physically inspected walls, roofs and floors of the treasury and recommended a second round of investigation with a ground penetrating radar (GPR) survey.

This was done on September 21 and 22, when experts from NGRI, Hyderabad carried out the GPR survey for around eight hours. A GPR survey is used to map and assess the layers, structures, and other aspects below the surface of the ground.

The NGRI team brought sophisticated machines with frequencies of 200, 400 and 900 MHz, which were used to gather data up to 10-metre down the floor. The NGRI team processed the data for over 10 days and submitted its report to the ASI.

Preliminary findings

Though the ASI is yet to submit the final report, the Odisha law minister said preliminary consultations with the ASI suggest there is no hidden chamber inside the Ratna Bhandar. The survey, however, helped the government to detect in detail the cracks inside the treasury, based on which the ASI, custodian of the shrine, will carry out conservation measures.

Another myth related to the Ratna Bhandar

Another myth is about a group of serpents guarding the deities' valuables inside the treasury. There have been claims of hissing sounds emanating from the inner chamber of the Ratna Bhandar.

The rumours resulted in the government deploying a team of snake helpline members within the temple premises when the Ratna Bhandar was opened on July 14. The team which entered the treasury, however, said they didn't come across any snakes, reptiles or insects inside the treasury.

Relevance: GS Prelims

Source: Indian Express

2. Indian 3-year-old now youngest rated chess player in the world: How FIDE ratings work

Introduction



Young chess players have made the headlines in recent years, with the likes of Indian grandmasters Gukesh and Praggnanandhaa R becoming major players in their teens. Now, an Indian prodigy, Anish Sarkar, has become the world's youngest chess player to be ranked by the International

Chess Federation — all at the age of three.

Kolkata-based Sarkar was enrolled at the Dhanuka Dhunseri Dibyendu Barua Chess Academy in March. Subsequently, he competed in the Under-9 tournament and finished 24th, defeating two rated opponents. In an Under-13 state event, he faced five rated players to get into the official rankings, released by the Fédération Internationale des Échecs (FIDE) or the International Chess Federation.

He currently has a rating of 1555 and his world rank (of active players) is 1,46,736. What exactly are ratings and rankings and what do chess players need to do to get recognised by FIDE?

Playing in FIDE tournaments for ratings

According to the FIDE Qualification Commission, players get official ratings by participating in FIDE-rated tournaments. It says that FIDE organises very few tournaments itself; mostly only global events such as the World Championship, its qualifiers and other World Championships. Most FIDE-rated tournaments will be tournaments within a country's federation. Either the federation organises them, or independent organisations do so with its permission. Usually, federation websites have tournament calendars clearly indicating which tournaments are FIDE-rated and which are not.

To become a FIDE-recognised tournament, certain regulations on time limits for a game, a minimum rating for players and other criteria must be met.

Also, to be included in the rating list, a player must be registered through a national chess federation which is a member of FIDE, unless otherwise approved by FIDE Council. The federation must not be temporarily or permanently excluded from membership at the time.

Types of ratings

The commission's website adds, "There are three possible types of rating you might achieve: Standard, Rapid and Blitz, which reflect different game lengths. In order to get a Standard rating, you will need to play at least 5 games against players who are already rated, and score at least ½ point (a draw) in those games."

FIDE regulations, updated earlier this year, also stated, "A rating for a player new to the list shall be published when it is based on at least 5 games against rated opponents. This need not be met in one tournament. Results from other tournaments played within consecutive rating periods of not more than 26 months are pooled to obtain the initial rating. The rating must be at least 1400."

How is this rating arrived at? The FIDE website says, "The FIDE Rating system is a numerical system in which fractional scores are converted to rating differences and vice versa. Its function is to produce measurement information of the best statistical quality."

Currently, FIDE awards chess's highest honour to a player who is able to achieve a FIDE Classical or Standard rating of 2,500, plus three Grandmaster norms. These norms are defined by a set of complex and rigorous rules regarding tournaments, games, and players, set out in the FIDE Title Regulations.

Relevance: GS Prelims

Source: Indian Express

3. What happens during the exposition of sacred relics of Saint Francis Xavier in Goa

Overview



The decennial exposition of the sacred relics of Saint Francis Xavier, the patron saint of Goa, will begin on Thursday (November 21), and go on till January 5 next year.

Pilgrims, especially from the Catholic community, and tourists will converge in Goa over the next 45 days to pay homage to

the saint, whose mortal remains will be put on public display for veneration. Considered to be a time of spiritual reflection, devotion and celebration, the event will be marked by religious ceremonies including masses, prayer services, novenas, and processions.

What happens during the exposition?

The "incorruptible" mortal remains of the Spanish Jesuit missionary St Francis Xavier, one of the founding members of The Society of Jesus, have been housed at the Basilica of Bom Jesus in Old Goa since 1624.

During the exposition, a four-century-old silver glass casket holding the relics will be lowered from its resting place in the mausoleum at the Basilica in a private ceremony. The relics will then be carried in a ceremonial procession from the Basilica to Se Cathedral, some 300 metres away, where they will be kept for the following 45 days for devotees to venerate.

When did this decennial tradition begin?

Although the decennial tradition is relatively new, the relics of St Francis Xavier have long been "exposed" to the public. The body of the revered saint has been looked upon as a miracle among the faithful, given that it showed minimal signs of decay.

In 1782, rumours circulated that the body of the saint was not in Goa, and had been replaced by another body. Following this, a public exposition took place to dispel these rumours. Subsequently, in the latter half of the 18th century, the sacred relics were exposed at irregular intervals on special occasions, which came to be known as the solemn exposition.

This became a more regular event after Goa was liberated from Portuguese rule in 1961, and has been held once every decade since 1964.

And who was St Francis Xavier?

St Francis Xavier, also referred to as "Goencho Saib" (Lord of Goa), arrived in Goa — then a Portuguese colony — in 1542. His primary mission, as ordered by King John III, was to restore Christianity among the Portuguese settlers.

He died in 1552 on Shangchuan island off China's coast. He was first buried on the island. The following year, his body was exhumed and transported to Malacca, where it was housed in the Church of St Paul for several months. The saint's body was shipped to Goa in 1554, and kept at St Paul's college in Old Goa — the first building constructed by Jesuits in Goa. The body was later transferred to Casa Professa near the Basilica by 1613, and placed in the Basilica in 1624.

Relevance: GS Prelims; Miscellaneous

Source: Indian Express